

**BEFORE THE
SURFACE TRANSPORTATION BOARD**

ENTERED
Office of Proceeding
May 30, 2013
Part of Public
Record

STB Ex Parte No. 711

**PETITION FOR RULEMAKING TO ADOPT REVISED
COMPETITIVE SWITCHING RULES**

**REPLY COMMENTS OF THE
ASSOCIATION OF AMERICAN RAILROADS**

Of Counsel:

Paul A. Guthrie
Paul Hitchcock
James A. Hixon
Theodore K. Kalick
Jill K. Mulligan
Roger P. Nober
John P. Patelli
David C. Reeves
Louise A. Rinn
John M. Scheib
Peter J. Shudtz
Gayla L. Thal
Richard E. Weicher
W. James Wochner

Louis P. Warchot
Association of American Railroads
425 Third Street, S.W.
Suite 1000
Washington, D.C. 20024
(202) 639-2502

Samuel M. Sipe, Jr.
Anthony J. LaRocca
Frederick J. Horne
Steptoe & Johnson, LLP
1330 Connecticut Avenue, N.W.
Washington, D.C. 20036
(202) 429-6446

*Counsel for the Association of
American Railroads*

May 30, 2013

TABLE OF CONTENTS

I.	Introduction and Summary	1
II.	The Available Evidence Supports Denial of NITL’s Petition Seeking Mandated Switching.	6
A.	Supporters of the NITL Proposal Have Presented Misleading and Incomplete Information on the Potential Impact of Mandated Switching.	7
B.	Evidence Submitted in Response to the Board’s Questions Shows that Adoption of NITL’s Proposal Would Not Be in the Public Interest.	9
1.	Board Questions 1 and 2 – Evidence on the Scope of the NITL Proposal.....	9
a.	NITL Failed to Model the Scope of Its Own Proposal.	10
b.	USDOT’s Analysis of the Potential Scope of the NITL Proposal Is Incomplete.....	13
c.	NGFA’s and USDA’s Impact Estimates Are Not Meaningful Even for the Limited Commodities Evaluated.	14
2.	Board Question 3 – Evidence on the Financial Impact of the NITL Proposal on Railroads.....	17
a.	NITL Virtually Ignored the Access Price Issue.....	17
b.	NITL Presents a Flawed Analysis of Competitive Response.	19
c.	NITL Failed to Consider the Impact of Reduced Revenues on Infrastructure Investment.....	20
d.	NITL Failed to Consider the Additional Costs to Railroads and Shippers that Would Be Imposed by Mandatory Switching.....	22
e.	NITL’s Claims of Traffic Increases Are Unsupported and Implausible.....	23
3.	Board Question 4 – Evidence on the Impact of the NITL Proposal on Disfavored Shippers	26
4.	Board Question 5 – Evidence on the Impact of the NITL Proposal on Service and Network Efficiency.....	29
a.	NITL Cannot Assume that Litigation in Individual Cases under the Proposed Rule Would Adequately Deal with System-Wide Service Impacts.....	29

b.	The Canadian Experience with Interswitching Does Not Support NITL’s Claim that Service in the United States Would Be Unaffected by Mandated Switching.	31
c.	NITL’s Interswitching Calculations Are Erroneous and Misleading.	32
III.	The Available Evidence Demonstrates that the NITL Proposal Is Not in the Public Interest.	34
A.	The Supporters of the NITL Proposal Point to No Public Benefits that Would Result from Mandated Switching.	35
B.	NITL Has No Valid Basis for Seeking a Reduction of Rates that Are Not Unreasonably High.	37
C.	The Public Interest Would Not Be Advanced by Incurring the Risk of Serious Disruptions of Rail Service Without Any Offsetting Public Benefits.	38
D.	It Is Not in the Public Interest for the Board to Pick Winners and Losers among Rail Shippers.	41
IV.	Conclusion: The Board Should Discontinue Consideration of the NITL Proposal.	42

Verified Statement of Michael R. Baranowski and Richard W. Brown

Verified Statement of B. Kelly Eakin and Mark E. Meitzen

Verified Statement of William J. Rennie

Verified Statement of Phil C. Ireland and Rodney E. Case

Verified Statement of Mark Fagan

**BEFORE THE
SURFACE TRANSPORTATION BOARD**

STB Ex Parte No. 711

**PETITION FOR RULEMAKING TO ADOPT REVISED
COMPETITIVE SWITCHING RULES**

**REPLY COMMENTS AND EVIDENCE OF THE
ASSOCIATION OF AMERICAN RAILROADS**

The Association of American Railroads (“AAR”) submits these reply comments in response to opening comments filed in the above-captioned proceeding by the National Industrial Transportation League (“NITL”), several individual shippers and shipper associations, the United States Department of Transportation (“USDOT”), the United States Department of Agriculture (“USDA”), and the UTU-NY. AAR filed opening comments in this proceeding on March 1, 2013.

I. Introduction and Summary

The Board should deny the NITL Petition¹ and discontinue further consideration of NITL’s proposal. The Board initiated this proceeding because it did not have the information necessary to determine whether NITL’s proposal for a new mandatory switching regime was in the public interest. The Board now has the information it needs to conclude that adoption of the NITL proposal would not be in the public interest. AAR and its member railroads have demonstrated that adoption of the NITL proposal would have serious consequences for shippers and railroads alike. Parties who support the NITL proposal have demonstrated only that they

¹ *Petition for Rulemaking of the National Industrial Transportation League* (filed July 7, 2011) (“NITL Petition”).

seek a massive annual wealth transfer from railroads to a subset of shippers that would result in no public benefit. Indeed, such a wealth transfer would risk substantial public harm.

The Board could not possibly conclude on the record created in this proceeding that it has any reason to move forward and propose switching rules based on the NITL proposal. Most commenters did not even attempt to develop an analysis of the proposal's potential impact. Some commenting parties (*e.g.*, USDA, National Grain and Feed Association²) chose to look only at the impact of the NITL proposal on limited segments of the rail freight sector. NITL, the leading proponent of mandatory switching, sought to create the false impression of a limited impact on railroads and on the rail network by ignoring fundamental elements of its own proposal. USDOT excluded from its analysis certain categories of traffic that the NITL proposal appears to cover on its face and that NITL included in its own analysis. AAR and its member railroads are the only commenters that tried to assess the impact of the actual rule changes that NITL proposed, and AAR's evidence does not support further proceedings.

As AAR explained in its opening comments, several factors make developing more than a rough estimate of the scope and impact of the NITL proposal impossible, including severe limitations in the available data, complex operating issues that vary from location to location, the inherent uncertainty in predicting how markets and market participants would react to substantial changes in regulation, and the lack of any basis for determining access prices. Notwithstanding the uncertainties inherent in predicting the outcome of the NITL proposal, AAR's evidence showed that the NITL proposal could affect a large percentage of the carloads handled by Class I

² Joint opening comments were filed by the National Grain and Feed Association, the Agricultural Retailers Association, National Barley Growers Association, USA Rice Federation, National Oilseed Processors Association, the National Chicken Council, National Association of Wheat Growers, National Council of Farmer Cooperatives, and National Corn Growers Association. These comments are referred to hereafter as the "NGFA Joint Comments."

railroads. AAR also showed that the disruptions and inefficiencies that would result from mandated switching have the potential for creating serious operating problems and degrading service to all rail customers. None of the supporters of NITL's proposal even attempted to examine the operating and service impacts of NITL's proposal on the rail network. The broad potential scope of the NITL proposal and the risk of a serious degradation of rail service throughout the rail network are more than sufficient reason to deny the NITL Petition and discontinue any further consideration of the NITL proposal.

NITL admits that mandated switching would be inefficient but claims that the Board need not worry because incumbent railroads would reduce their rates to retain traffic eligible for switching and thereby avoid the adverse impact of service by a less efficient alternative carrier. The public interest would not be served by taking the risk of a serious degradation in rail service based on NITL's wishful thinking. Shippers would not be vigorously seeking mandated switching if they did not intend to make full use of the new switching options. Indeed, NITL would have no basis for assuming a dramatic reduction in rail rates if the prospect of expanded switching was just an empty threat.

Moreover, NITL's acknowledgement that mandated switching, if it occurs, would add inefficiency to the U.S. rail network raises a serious question. It would be a perverse exercise of regulatory power to adopt a rule that is inefficient and potentially risky as a backdoor way to force railroads to reduce their rates when the statute already provides explicit protections against unreasonably high rates. The Board should be concerned about promoting conduct that will enhance efficiency, not degrade it.

The public interest would also not be served by adopting regulations expected to provide rate reductions to a sub-group of shippers at the expense of all other shippers. The commenting

shippers recognize that the impact of NITL's proposal would be focused on a limited group of favored shippers, as reflected in the lukewarm support for the proposal among grain and coal shippers. AAR pointed out on opening that the NITL proposal would have the adverse consequence of creating winners and losers among shippers. NITL claims that the shippers able to take advantage of mandated switching would receive massive rate reductions. This would give the favored shippers a significant competitive advantage over their disfavored competitors. The artificial rate reductions that some shippers would obtain under the NITL proposal would allow those favored shippers to take market share away from other shippers that would not be covered by the new rule. In addition, shippers that are not covered by the new rule would suffer the adverse service consequences of inefficient switching being carried out for the favored shippers, and they would also experience an overall decline in the quality of rail service that would result from siphoning off rail revenues that would otherwise go toward improving and expanding the rail network. Disfavored shippers would in effect be paying for the benefits conferred on other shippers who, in many cases, are competitors of the disfavored shippers.

The record reveals no public benefits from adopting the NITL proposal that would offset these adverse consequences. The shipper commenters offer no justification for mandated switching other than their desire for reduced rates. Although couched as a form of "enhanced competition," the NITL proposal is not designed to generate public benefits such as enhanced efficiency or expansion of service that would be produced by genuine, market-driven competition. The NITL proposal is designed to transfer wealth from the railroads to a subset of shippers able to take advantage of the proposed rule. There is no affirmative rationale for adopting NITL's proposal, and indeed, the loss of revenue from the wealth transfer would seriously affect railroads' ability to maintain and expand the railroad network through capital

investments. The lack of any showing of public benefits from the NITL proposal, as opposed to a wealth transfer that would harm the public interest, should be fatal to that proposal.

AAR's reply evidence and argument is supported by verified statements from the following witnesses:

- Michael R. Baranowski and Richard W. Brown of FTI Consulting address NITL's approach to estimating the number of carloads potentially eligible for mandated switching. Messrs. Baranowski and Brown describe the various methodological choices made by NITL when identifying carloads. They show that NITL's choices are inconsistent with NITL's own proposal and produce a dramatically understated estimate of the impact of the NITL proposal.
- B. Kelly Eakin and Mark E. Meitzen of Christensen Associates point out that the comments of various parties on opening confirm that NITL's proposal would create winners and losers among shipper groups by conferring a competitive advantage on favored shippers who could obtain mandated switching at the expense of disfavored shippers who could not. They also demonstrate that NITL's estimate of revenue impacts is unreliable and that adopting a cost-based approach to access pricing would lead to market distortions. In addition, Messrs. Eakin and Meitzen describe the flaws in NITL's claim that the NITL proposal would produce an increase in rail traffic that would offset revenue losses.
- William J. Rennie of Oliver Wyman, Inc. explains that NITL's assertion that service problems will not result from the NITL proposal is based on nothing but speculation. Mr. Rennie explains that the public interest would not be served by incurring the risk of service disruptions. He also shows that NITL's financial impact analysis is flawed in several respects and fails to consider the strong public interest in promoting adequate infrastructure investment. Mr. Rennie also addresses NITL's failure to consider relevant market conditions in speculating that reduced rail rates would lead to significant increases in rail traffic volumes.
- Phil C. Ireland and Rodney E. Case rebut NITL's claim that the Canadian experience with interswitching shows that service in the United States would not be adversely affected by adoption of NITL's proposal. Messrs. Ireland and Case explain that NITL's reliance on Canada's experience with interswitching to predict the impact of mandated switching in the United States is misplaced due to the fundamental differences in the U.S. and Canadian railroad networks. They also address the flaws in NITL's estimate of the frequency of interswitching in Canada and NITL's misleading efforts to apply those flawed calculations to U.S. markets.
- Mark Fagan of Harvard's Kennedy School explains that the supporters of the NITL proposal have failed to apply a meaningful economic framework for evaluating whether regulatory intervention to impose mandated switching is in the public interest. Mr. Fagan presents a framework for assessing the NITL proposal that

involves weighing any possible public benefits, which do not include a simple wealth transfer, against the likely costs, including potentially large coordination costs. He notes that NITL's filings in support of its proposal do not present any reason to believe that the proposal would create any public value as opposed to transferring wealth from railroads to a group of shippers.

II. The Available Evidence Supports Denial of NITL's Petition Seeking Mandated Switching.

The Board initiated this inquiry because it was unable to “fully gauge” the “potential impact” of the NITL proposal. *Petition for Rulemaking to Adopt Revised Competitive Switching Rules*, STB Ex Parte No. 711, slip op. at 2 (served July 25, 2012) (“EP 711 Notice”). Based on evidence provided by NITL in support of its proposed rule, the Board was unable to determine whether the NITL proposal was in the public interest. The Board could not make a public interest assessment without knowing how the NITL proposal would affect railroads, shippers and the rail network. Specifically, the Board noted that NITL had failed to provide data in its original submission concerning “how many shippers would be able to take advantage of mandatory competitive switching.” *Id.* The Board explained that “NITL’s petition itself . . . does not include detailed evidence or analysis of the likely benefits to shippers that could obtain mandatory switching . . . nor does it address how remaining shippers might be affected.” *Id.* at 7. The Board further noted that “[t]he access price would be a significant factor in determining the impact” of NITL’s proposal, “but that critical element also was not included in NITL’s petition. *Id.* at 2. The Board concluded that “additional information is needed before we can determine how to proceed.” *Id.*

In the past, the Board has rejected petitions for rulemaking out of hand when it has concluded that they lacked sufficient information to support institution of a rulemaking

proceeding.³ But the Board decided here that it would give NITL a chance to fill the holes in its petition to permit a reasoned evaluation of the proposal. The Board asked parties to provide not only the data that it had identified as missing from the NITL petition, but to specifically address the “impact on rates and service” for shippers who would not be able to obtain mandatory switching and “the impact on the railroad industry, including its financial condition, and network efficiencies or inefficiencies.” EP 711 Notice at 2.

As explained below, the supporters of the NITL proposal understate the impact of NITL’s proposal in many ways and fail to even address the substantial adverse impact that the proposal would have on rail service, other shippers, the rail network and the public interest. The evidence presented on opening comes nowhere close to permitting the Board to conclude, as NITL claims, that its proposal would benefit shippers without harming the railroad industry.⁴ To the contrary, it makes clear that the NITL proposal does not warrant further evaluation.

A. Supporters of the NITL Proposal Have Presented Misleading and Incomplete Information on the Potential Impact of Mandated Switching.

On the question of the scope of the NITL proposal and its potential financial impact on the railroad industry, the supporters of the NITL proposal sought to create the false impression of a minimal impact by disregarding elements of the NITL proposal, analyzing only portions of the traffic that would be affected, and making methodological choices that systematically understate the scope of the proposal. Indeed, none of the parties supporting the NITL proposal actually

³ See, e.g., *Petition of the Association of American Railroads to Institute a Rulemaking Proceeding to Reinroduce Indirect Competition as a Factor Considered in Market Dominance Determinations for Coal Transported to Utility Generation Facilities*, STB Docket No. EP 717, slip op. at 7 (served Mar. 19, 2013) (“*Market Dominance Rulemaking Petition*”) (declining to proceed on the basis that petitioner had failed to present a “practical framework” or resolve “practical difficulties”).

⁴ Opening Submission of the National Industrial Transportation League, at 64 (filed Mar. 1, 2013) (“NITL Comments”).

modeled the impact of the rules that NITL has proposed. Only AAR sought to estimate the scope of the NITL proposal based on the terms that NITL asked the Board to adopt, and AAR's evidence shows that the NITL proposal would have a broad impact, potentially applying to more than one third of the non-intermodal carloads transported by Class I railroads each year.⁵

On the question of the impact of the NITL proposal on service quality and the efficiency of rail operations, AAR and its member railroads were the only parties that presented any real evidence. AAR showed on opening that the NITL proposal could have a severe impact on the quality of rail service. AAR's witnesses show in this reply that NITL's reliance on Canada's experience with an "interswitching" regime that has been a part of the Canadian regulatory framework for 100 years to predict the impact on service from the introduction of a new mandated switching regime in the United States is misplaced. This leaves the supporters of the NITL proposal with no evidence at all on the potential service impact of the NITL proposal. While it is not possible to quantify with precision the magnitude of the negative service impacts, the NITL proposal carries the risk of severe degradation of rail service in areas where congestion already exists and across the network as local problems expand through the rail network.

On the question of potential public benefits, no party presented evidence of any public benefit that would result from the NITL proposal. The proponents of the NITL proposal made no effort to conceal the fact that their objective is simply to obtain lower rates for a sub-group of shippers. They made no effort to show that the shippers who would benefit from the NITL proposal are paying unreasonably high rates or receiving poor service. Their assertions that adoption of NITL's proposal would increase rail traffic are based on pure speculation. The NITL proposal is about nothing more than a wealth transfer to a select group of favored shippers.

⁵ Opening Comments of the Association of American Railroads, at 3 (filed Mar. 1, 2013) ("AAR Comments").

Moreover, the private benefits that would be conferred on the “winners” under NITL’s proposal would come at the expense of service degradation and competitive dislocations for the “losers.”

B. Evidence Submitted in Response to the Board’s Questions Shows that Adoption of NITL’s Proposal Would Not Be in the Public Interest.

The Board sought responses to five sets of questions to enable it to determine whether the NITL proposal was in the public interest. The shortcomings and flaws in the evidence submitted by the parties supporting the NITL proposal on those five questions are addressed below.

1. Board Questions 1 and 2 – Evidence on the Scope of the NITL Proposal

The Board’s first two questions sought information on the “terminals” that would be affected by the NITL proposal and how many shippers would be able to obtain mandated switching under the NITL proposal. None of the commenting parties attempted to identify terminals or terminal locations.⁶ As AAR explained, there is no generally accepted definition of a terminal and there is no available data source that would allow the identification of terminals.⁷ Similarly, none of the commenting parties attempted to identify individual shippers that would be covered by the NITL proposal. All of the commenting parties that attempted to estimate the impact of the NITL proposal acknowledged that the Waybill data cannot be used to identify particular shippers. Accordingly, those parties who submitted any impact analysis sought to address the scope of the NITL proposal based on the number of potentially affected carloads that could be identified from the Waybill Sample.

⁶ NITL’s opening comments contain several pages of extraneous discussion of current reciprocal switching carried on by Class I railroads. NITL Comments, at 19-24. Although NITL’s discussion sometimes incorrectly equates the locations where this reciprocal switching occurs to “terminals,” NITL does not appear to suggest that it is possible to create any list of existing terminal areas. Nor does NITL attempt to address which shippers are located in terminal areas, or which shippers located in such areas do and do not have access to reciprocal switching today.

⁷ AAR Comments at 10-11.

Of the four parties other than AAR who presented evidence on the number of potentially affected carloads – NITL, USDOT, NGFA, and USDA – none developed a credible estimate and all used approaches that substantially reduced the apparent scope of the NITL proposal.

a. NITL Failed to Model the Scope of Its Own Proposal.

The most expansive analysis from any party supporting the proposal appears in NITL's opening comments. NITL used Escalation Consultants to provide an impact analysis and NITL's opening comments include the Verified Statement of Henry Julian Roman ("Roman V.S."), Escalation Consultant's president, as part of its evidence. Although NITL presents the Roman analysis as a comprehensive assessment of the traffic potentially subject to its proposal, NITL made numerous methodological choices that substantially limited the number of carloads that NITL counted as subject to its proposal.

As described in more detail in the reply verified statement of Messrs. Baranowski and Brown ("Baranowski/Brown Reply V.S."), NITL did not even model its own proposal. NITL discloses in a footnote,⁸ that it did not attempt to model the impact of its proposed 75% rule. Under the NITL proposal, a shipper served by a single railroad would be eligible for a mandated switching order if at least 75% of the traffic at issue was handled by the incumbent railroad in the past 12 months. AAR addressed on opening the critical flaws in NITL's 75% rule.⁹

NITL's failure to account for the 75% rule in assessing the potential impact of its proposed rule change fatally undermines the credibility of its impact estimate. The 75% rule

⁸ NITL Comments at 7 n.10.

⁹ As AAR explained, NITL purports to limit mandated switching to situations where there is no effective competition, but the 75% rule says nothing about the existence of effective competition. AAR explained that there are many situations in which a shipper might ship 75% or more of its traffic for a given commodity/origin-destination combination by rail whether or not it has an effective competitive alternative to rail shipments. Moreover, AAR explained that the 75% rule could be easily manipulated by shippers to create the basis for seeking a mandated switching order. AAR Comments at 40-43.

would apply regardless of the R/VC level of the movement at issue. Indeed, AAR explained on opening that the 75% rule would largely eliminate the relevance of the 240% R/VC presumption since there are a large number of movements where a rail carrier serves all or virtually all traffic for a given commodity/origin-destination combination but charges rates below 240%. NITL, however, limited the scope of its evidence to movements with an R/VC of 240% or greater. This approach dramatically reduced the number of carloads that NITL counted as eligible for mandated switching under NITL's proposal.

NITL's exclusive focus on movements with an R/VC ratio of 240% or greater also ignored another important feature of its own proposal. Under the NITL proposal, the 240% R/VC eligibility criteria is used as a presumption to establish the existence of market dominance. But the NITL proposal does not preclude shippers with R/VC ratios below 240% from obtaining mandated switching if those shippers could show a lack of effective competition. There would likely be many cases of shippers served only by a single railroad with R/VC ratios below 240% that could meet the Board's existing market dominance test. NITL's decision to limit its impact estimate to movements with R/VC ratios of 240% or greater therefore makes its impact evidence incomplete.

Messrs. Baranowski/Brown explain that NITL ignored several other elements of its own proposal in an effort to create the false impression that the scope of its proposal would be limited. Baranowski/Brown Reply V.S. at 3-9. For example, NITL's consultants used 30 rail miles rather than the "30-mile radius" specified in the NITL proposal to assess the scope of the NITL proposal. While NITL's proposal is not limited to rail miles, NITL's consultants used rail

miles while at the same time acknowledging that decreasing the radius applied can substantially reduce the volume of traffic affected.¹⁰

NITL also adopted a narrow definition of what would be considered a possible interchange point that is not consistent with its proposal that switching could be mandated anywhere where “there is or can be a working interchange.”¹¹ This had the effect of limiting the number of stations, and therefore carloads, that NITL identified as eligible for mandated switching.

NITL also excluded carloads where a mandated switching order would open one end of a movement but leave the incumbent Class I as the sole carrier at the other end of the movement. The NITL proposal clearly would entitle shippers to seek mandatory switching under these circumstances and shippers could have reasons to do so. Excluding these carloads artificially reduces the potential scope of the NITL proposal.

NITL also excluded KCS, CN, and CP traffic. Although the Board permitted parties to examine less than all traffic, this exclusion means that the NITL scope estimates are not industry-wide and are thus understated.

Each of the choices described above reduced the number of carloads that NITL portrays as covered by its proposal. The only material instance in which NITL made a choice that expanded its estimate of affected carloads relative to AAR’s estimate was in purporting to identify carloads at stations served by more than one railroad that would nonetheless fall within the scope of mandatory switching because the shippers’ facilities at those stations do not, in fact, have access to more than one Class I railroad. AAR did not attempt to include these carloads in its estimate because, as explained by Messrs. Baranowski and Brown in their opening statement,

¹⁰ NITL Comments at 44.

¹¹ NITL Petition at 67.

no meaningful estimate can be made of the number of relevant carloads using the Waybill data.¹² NITL's approach did not overcome the data limitations.

As Messrs. Baranowski and Brown explain in their reply statement, the basic criterion NITL used to identify potentially qualifying carloads at multi-served stations was whether the traffic has an R/VC over 240%. There are obvious problems with NITL's approach, however. The choice of 240% R/VC as the determinant of whether a shipper has more than one rail option is entirely arbitrary. The Waybill data show that there are many movements from shipper facilities with a single rail option that have R/VC ratios below 240%. Moreover, NITL failed to account for the 75% rule in its own proposal (*i.e.*, carloads that would qualify for switching because more than 75% of the shipper's traffic is handled by the single railroad that serves its facility at the multi-served station) and therefore left out of its estimate a large number of carloads that could potentially qualify for mandated switching under that alternative. Baranowski/Brown Reply V.S. at 8-10.

b. USDOT's Analysis of the Potential Scope of the NITL Proposal Is Incomplete.

Like NITL, USDOT sought to quantify the number of carloads potentially subject to mandated switching based on 2010 Waybill data. Also like NITL, USDOT made methodological choices that clearly led to lower numbers of affected carloads (and revenues) than would have resulted from a model incorporating NITL's actual proposal or applying NITL's proposal to all potentially affected traffic transported by all Class I carriers. Among other things, USDOT evaluated a subset of commodities, excluded exempt traffic (which NITL *included*), excluded KCS, CN, and CP traffic, excluded traffic that originated or terminated outside the

¹² AAR Comments, Verified Statement of Michael R. Baranowski and Richard W. Brown, at 4 ("Baranowski/Brown V.S.").

United States, and excluded Class II and III railroads as potential alternative carriers. USDOT explained that it made these narrowing assumptions in response to the Board's comment in the notice initiating this proceeding that commenting parties could focus only on a single railroad in presenting impact estimates. But, as a result, USDOT's analysis focuses only on limited and incomplete data which do not reflect the universe of rail traffic subject to the NITL proposal.

USDOT's analysis is incomplete in other respects. USDOT considered only single-line moves, and it considered only traffic with an R/VC ratio of 240% or more. As AAR explained above, NITL's 75% presumption has the potential for swallowing the 240% R/VC criteria. Therefore, USDOT's limitation of its analysis to traffic with an R/VC ratio of 240% or more dramatically understates the scope of the NITL proposal. USDOT's focus only on single-line moves similarly understates the scope of the NITL proposal. Indeed, even NITL's understated impact analysis suggests that more traffic and revenue would be subject to the proposal than does USDOT's.¹³

c. NGFA's and USDA's Impact Estimates Are Not Meaningful Even for the Limited Commodities Evaluated.

Only two additional commenters, NGFA and USDA, tried to quantify the number of carloads potentially affected by the NITL proposal. Their evidence relates to agricultural shippers, and both commenters question the extent of benefits that would accrue to agricultural

¹³ An additional issue is that neither AAR nor the Board can verify USDOT's analysis because USDOT did not make available the underlying workpapers. Without those workpapers, AAR's consultants were unable to reproduce USDOT's results. It would be problematic for the Board to draw conclusions from USDOT's calculations since those calculations cannot be verified or commented on without underlying workpapers. See, e.g., *Chamber of Commerce of the United States v. SEC*, 443 F.3d 890, 900 (D.C. Cir. 2006) ("By requiring the 'most critical factual material' used by the agency be subjected to informed comment, the APA provides a procedural device to ensure that agency regulations are tested through exposure to public comment, to afford affected parties an opportunity to present comment and evidence to support their positions, and thereby to enhance the quality of judicial review.")

shippers. NGFA concludes that agricultural shippers would receive “minimal” benefit from the NITL proposal,¹⁴ while USDA asserts that “the NITL proposal would benefit too few grain and oilseed shippers.”¹⁵ Both NGFA and USDA focused on subsets of traffic limited to agricultural commodities. Moreover, there are several deficiencies in both analyses, and as a result they do not present credible or meaningful impact estimates even for the commodities they analyze. Neither NGFA nor USDA attempted to model NITL’s actual proposal.

NGFA’s analysis of potentially affected carloads consists of little more than (1) identifying carloads from the 2011 Waybill Sample that fall into agricultural commodity categories specified by NGFA; (2) identifying single-line Class I movements in this agricultural group that do not originate in Canada; and (3) reporting the number of carloads in the resulting group that have an R/VC ratio of 240% or more, or alternatively RSAM.¹⁶ This analysis has only the most tenuous connection to the NITL proposal. The number of carloads of various commodities in a given R/VC range says virtually nothing about the NITL proposal’s impact. In addition, NGFA did not attempt to identify carloads that would qualify under NITL’s 75% conclusive presumption. Moreover, NGFA’s exclusion of traffic with Canadian origins and joint-line traffic are not consistent with the NITL proposal, which does not exclude such movements.

The USDA analysis was performed by Escalation Consultants, the same firm hired by NITL, and appears to consist of a subset of the NITL analysis involving agricultural commodities. USDA presents estimates of potentially affected carloads for those commodities

¹⁴ NGFA Joint Comments at 23.

¹⁵ Comments of the U.S. Department of Agriculture, at 5 (filed March 1, 2013) (“USDA Comments”).

¹⁶ NGFA Joint Comments, Opening Verified Statement of Gerald W. Fauth III, at 5-8, 14 (“Fauth V.S.”).

using three different R/VC thresholds: 180%, 240%, and RSAM.¹⁷ To the extent that USDA's evidence is NITL's evidence on a smaller scale, it suffers from the numerous defects described above that render the NITL analysis meaningless. Moreover, it was impossible for AAR, as it will be for the Board, to properly assess USDA's evidence because USDA refused to provide the workpapers underlying its analysis. When contacted by counsel for AAR, USDA asserted that its analysis was based on "proprietary" software and data and that it would consider providing AAR only with non-proprietary materials and only in response to a Freedom of Information Act request.¹⁸ The Board cannot rely on evidence submitted by a party who refuses to disclose the basis for its evidence and therefore does not give other parties the ability to review and comment on its underlying calculations.¹⁹

¹⁷ USDA Comments at 10-12. USDA claims that it presents data corresponding to an alternative 180% R/VC eligibility criteria because it "is not in favor of restricting switching based on an arbitrary threshold." *Id.* at 5. AAR agrees with USDA that NITL's proposed 240% R/VC threshold is "arbitrary" and that an RSAM threshold would be equally "arbitrary." As AAR explained in its opening comments, the R/VC level of a movement does not say anything about market dominance or the absence of effective competition. Similarly, the statutory 180% R/VC criteria is intended only to exclude from any consideration of market dominance movements below 180% R/VC, not as a means of identifying whether market dominance exists. Indeed, USDA ultimately acknowledges that it supports a 180% R/VC threshold for the unprincipled reason that "it would allow more agricultural shippers to benefit from competitive switching." USDA Comments at 6.

¹⁸ USDA's reference to "proprietary" materials presumably involved workpapers prepared by Escalation Consultants. NITL and Escalation Consultants apparently did not view such materials as "proprietary" since NITL provided workpapers from Escalation Consultants upon request.

¹⁹ See *Chamber of Commerce*, 443 F.3d at 900.

2. Board Question 3 – Evidence on the Financial Impact of the NITL Proposal on Railroads

The Board's third question focuses on the likely reduction in revenues available to the railroad industry as a result of the NITL proposal. NITL was the only commenter that claimed to provide an overall revenue impact figure. However, NITL based its estimate of financial impact on the number of carloads potentially affected by the proposal (by calculating a per carload revenue reduction), and thus its understatement of the potentially affected carloads produced an understatement of financial impact.²⁰ NITL's revenue impact analysis is incomplete and unreliable for additional reasons.

a. NITL Virtually Ignored the Access Price Issue.

When the Board initiated this proceeding, it stated that a "critical element" missing from NITL's proposal was the access price that would be established in the event railroads are unable to negotiate a switching fee. The level of the access price directly affects the impact of mandated switching. As Messrs. Eakin/Meitzen explain in their reply verified statement ("Eakin/Meitzen Reply V.S."), an artificially low regulatory access price would distort the market by encouraging shippers to use inefficient switching. In contrast, market-based access prices would ensure that switching occurs only when market forces justify switching. Eakin/Meitzen Reply V.S. at 12-15. Therefore, the level of the access price affects the amount of switching that would occur under the NITL proposal. It also affects the amount of revenue that would be lost by the railroads under a mandated switching regime since the switching fee could potentially reduce or offset the revenue losses from reduced line-haul rates.

²⁰ Revenue figures presented by other parties, *e.g.*, USDA, NGFA, USDOT, explicitly relate to only a subset of potentially affected carloads. While NITL's analysis was in some senses more complete, NITL also explicitly chose to address less than all potentially affected traffic when it limited its analysis by excluding KCS, CN, and CP traffic.

As AAR explained on opening, AAR is not in a position to make any estimate relating to access prices. The statute provides that access prices are supposed to be established through railroad negotiations, 49 U.S.C. § 11102(c)(1), and AAR takes no position on the outcome of private negotiations among railroads regarding compensation for access. Indeed, the statutory mandate that access prices are to be established in the first instance through negotiations is another reason that the impact of the NITL proposal is impossible to predict. Negotiated access prices would be established in the context of numerous different situations and cannot be predicted in advance or as a general matter. In any event, since AAR is not in a position to estimate access prices, AAR was not in a position to provide estimates of rate reductions that would result from the NITL proposal.

While the Board noted the absence of the “critical element” of access prices from NITL’s original proposal, the Board gave NITL the opportunity to remedy this failing in this proceeding. However, the proponents of the NITL proposal virtually ignored the issue. For purposes of its analysis, NITL calculates an estimated average access price that uses Canadian interswitching fees as a starting point.²¹ But NITL does not argue that the Board should adopt the Canadian approach.²²

To the extent that NITL’s discussion of Canadian interswitching rates is intended to suggest that the Board should adopt some sort of cost-based access fee regime, that proposal

²¹ NITL calculates its average access price based on the assumption that distance to interchange does not influence the price, even though that distance is a factor in setting the Canadian rate.

²² USDA appears to suggest that the Board should simply adopt interswitching fees established by the Canadian government. USDA provides no details of how this should be done and the proposal cannot be taken seriously. The Board could not possibly consider ceding responsibility for an important regulatory decision to a foreign government, nor would there be any rational basis for establishing U.S. access prices for carriers performing mandatory switches in the U.S. based on railroads operating in Canada.

should be rejected. Messrs. Eakin and Meitzen explain in their reply verified statement that adopting cost-based access fees would not be sound regulatory policy. Cost-based access fees would be inconsistent with the principles of differential pricing that are at the heart of the Board's rate-regulation procedures and are likely to result in market outcomes that are inefficient. Access fees that are set by the regulator below the level that would prevail under market-based negotiations would produce an amount of switching greater than the economically optimal level. Eakin/Meitzen Reply V.S. at 13-15.

b. NITL Presents a Flawed Analysis of Competitive Response.

In addition, as explained in the Eakin/Meitzen Reply V.S., NITL's methodology for estimating the extent to which revenues would fall in the presence of mandatory switching is conceptually flawed for a variety of reasons. Eakin/Meitzne Reply V.S. at 7-12. NITL witness Roman developed two scenarios for estimating revenue reductions, one of which he labels "full competition" and the other "reduced competition." As Messrs. Eakin and Meitzen discuss, however, neither NITL nor Mr. Roman describes the market mechanisms or forces that would lead to substantially reduced rates under mandatory switching. NITL and Mr. Roman assert that (1) the driver behind reduced rates would be the threat of switching and that (2) switching will rarely, if ever, occur. Even if NITL were correct that shippers would be interested in mandatory switching only for purposes of obtaining lower rates, NITL offers no basis for predicting the volume of switching that would be required to maintain the threat of mandatory switching that it claims is necessary to bring about desired rate reductions. Instead, it conveniently assumes, with no evidentiary basis, that there would be virtually no switching. This failure by NITL to support its claim that future mandatory switching would be *de minimis* or, alternatively, to account for significant levels of switching that might be necessary to produce the desired rate reductions, undermines its financial impact estimate.

Nor is there any basis for the distinction that Mr. Roman creates between his “full competition” and “reduced competition” scenarios. As Messrs. Eakin and Meitzen explain, Mr. Roman’s analysis is based on the assumption that traffic with an R/VC below 180% is “fully competitive” while traffic above that threshold is “captive.” The distinction he draws is supported neither by economic theory nor by the statute. The R/VC ratio on a particular movement does not establish the degree of competition faced by the railroad providing the transportation.²³ Much more detailed information about individual markets and individual shippers would be required before any reasonable estimate could be made of the price levels that would result from the availability of a new carrier under a mandatory switching regime.²⁴

c. NITL Failed to Consider the Impact of Reduced Revenues on Infrastructure Investment.

NITL argues that the Board need not worry about the financial impact of its proposal because NITL’s estimated \$1.29 billion annual loss of revenue (for the four Class I railroads covered by NITL’s analysis) would be a “very small fraction” of total Class I railroad revenues.²⁵

²³ See Comments of Roanoke Cement Co., at 5-6 (stating that Roanoke is served by only one railroad but has rates below 240%); *M&G Polymers USA, LLC v. CSX Transportation, Inc.*, STB Docket No. NOR 42123 (served Sept. 27, 2102) (finding that railroad lacked market dominance on certain routes with rates over 240%).

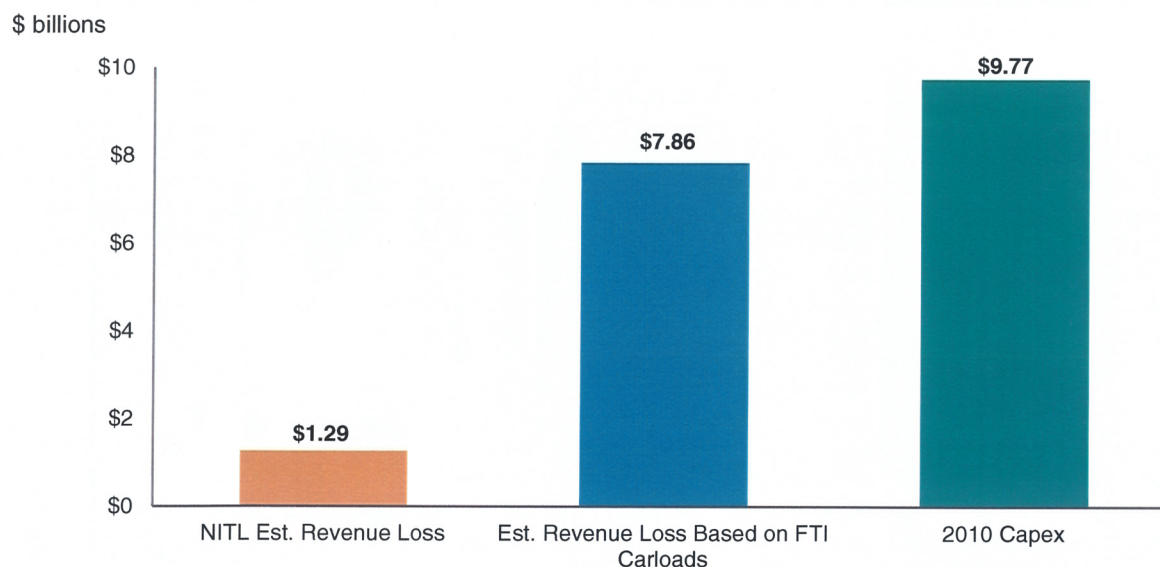
²⁴ Roman’s “duopoly pricing” model is based on the assumption that railroads would not compete vigorously for traffic that becomes available through mandated switching. Other commenting parties go farther and question whether mandated switching could be expected to provoke any competitive response by the railroads. See, e.g., Comments of the Chlorine Institute, Inc., at 2 (filed Mar. 1, 2013) (“Chlorine Institute Comments”); Opening Submission of Entergy Arkansas, Inc., et al., at 11 (filed Mar. 1, 2013) (“Entergy Comments”); NGFA Joint Comments, at 15-16 (filed Mar. 1, 2013); Initial Comments of Olin Corporation, at 6 (filed Mar. 1, 2013). Many shippers in Ex Parte No. 705 made similar unsupported claims about the rigor of rail-to-rail competition, and the railroad parties in that proceeding showed that such claims were empty rhetoric and contrary to actual experience in rail markets. Shipper commenters in this proceeding have provided no reason to give further consideration to their baseless claims regarding the degree of railroad competition in transportation markets.

²⁵ NITL Comments, at 64.

But as explained by Mr. Rennicke in his reply verified statement (“Rennicke Reply V.S.”), NITL’s discussion of the revenue impact of NITL’s proposal as a percentage of gross revenues is highly misleading because it does not reflect the money available to railroads to fund capital investments. Capital investments are funded in large measure by net income, *i.e.*, the revenues that are left over after subtracting expenses. Net income and capital spending are the appropriate benchmarks for assessing the impact of the industry’s revenue losses.

When put into the proper context, it becomes apparent that even the revenue losses estimated by NITL would have a major impact on capital spending by the railroad industry. As Mr. Rennicke explains, NITL’s understated \$1.29 billion revenue loss (for four Class I railroads) is the equivalent of 13 percent of the railroad industry’s 2010 capital expenditures. Rennicke Reply V.S. at 19. And when FTI’s estimate of the carloads affected by NITL’s proposal is substituted in NITL’s analysis for NITL’s lowball carload estimate, the revenue losses using NITL’s financial impact assumptions would be almost the equivalent of the industry’s entire capital spending budget. Mr. Rennicke’s Exhibit IV-3, set out below, depicts the magnitude of the revenue losses using NITL’s understated carload estimate and FTI’s carload estimate compared to capital expenditures in 2010. It is clear that the revenue losses from the NITL proposal would be substantial and would lead to a contraction of the U.S. rail network.

Exhibit IV-3: Magnitude of the NITL's Revenue Loss Understatement²⁶



d. NITL Failed to Consider the Additional Costs to Railroads and Shippers that Would Be Imposed by Mandatory Switching.

The revenues available to the railroad industry to make capital investments would be reduced as a result of lower rates *and* as a result of higher costs. NITL and its supporters failed altogether to consider the cost impact of NITL's proposal.

It is not possible to predict the amount of additional switching that would result from NITL's proposed rule change. However, even NITL acknowledges that adding switches would increase railroad costs. Mr. Rennicke explains that additional costs would be imposed on railroads in the areas of yard track, yard staff, train and engine staff, railcars, locomotive maintenance and fuel. Rennicke Reply V.S. at 25-26. Rough estimates of the magnitude of the cost increases in these areas can be made by looking at the historical relationship between the resources that have been required in each of these cost categories in past years and the number of interchanges in the corresponding year. Mr. Rennicke shows in Exhibits IV-6 to his reply

²⁶ Source: Revenue impacts based on Oliver Wyman analysis of NITL and FTI data contained in the EP 711 filing, March 1, 2013. 2010 capex from Railroad Facts, 2011 Edition, op. cit., p. 44.

statement that these estimated cost increases are substantial. When the cost increases are added to the effect of rate reductions, the revenue losses for 2010 *exceed* total 2010 capital expenditures.

Mr. Rennie also explains that these cost estimates do not include any estimate of the substantial and widespread indirect costs that would be incurred by railroads and shippers from the effects of congestion and other operating inefficiencies that would result from a mandated access regime. The indirect costs would further reduce the revenues available to make capital investments in rail infrastructure. *See Rennie Exhibit IV-7.* Moreover, these indirect costs would not be borne only by the railroads; shippers could expect to incur costs ranging from additional car fleet requirements to delay-related costs. *Rennie Reply V.S. at 28-30.*

Thus, while precise estimates of the financial impact of the NITL proposal cannot be made, it is clear that the total revenue losses from reduced rates and increased costs that could be incurred as a result of the NITL proposal would be devastating to the public's interest in a well financed railroad network. The public interest is not advanced by regulatory measures that would severely undercut the ability of the railroad industry to make capital investments in infrastructure needed to improve and expand the railroad network.

e. NITL's Claims of Traffic Increases Are Unsupported and Implausible.

The Board also asked whether there was evidence that any reduction in rates that resulted from the NITL proposal would produce net increases in traffic that would, at least in part, offset the reduced revenues that would be available to the railroads. The comments supporting the NITL proposal contain nothing but speculation about potential traffic gains.

While NITL's analysis is very superficial, it appears that NITL assumes that the primary source of traffic gains would be traffic taken by railroads from other modes of transportation:

“[I]f it costs more to ship by rail than other logistics options, railroads will lose business. And, the converse is also true: as rail rates decline, more traffic will flow to the railroads.”²⁷ There is a fundamental logical flaw in NITL’s argument. As explained by Messrs. Eakin/Meitzen, the premise underlying NITL’s mandated switching proposal is that the traffic subject to mandated switching does not have effective modal competitive alternatives. If that is true, then rail rate declines on traffic eligible for switching would not attract traffic from other modes – those other modes were not effective alternatives to the rail traffic in the first place. Eakin/Meitzen Reply V.S. at 17.

There are other flaws in NITL’s vague claims that lower rates will attract more rail traffic. NITL, for example, bases its claim that lower rates produced by mandatory switching would lead to new traffic on a study of Canadian traffic increases into Chicago during a period when Mr. Roman asserts that U.S. rates for comparable shipments into Chicago were rising. Mr. Roman appears to believe that shippers make transportation choices based on how quickly rates increase rather than on the level of rates.²⁸ His logic is obviously flawed. If Railroad A increases its rate from \$1 per ton to \$1.50 per ton (a 50% increase) while Railroad B increases its rate from \$2.00 per ton to \$2.58 per ton (a 29% increase), there is no obvious reason why a shipper would switch from Railroad A to Railroad B. Notwithstanding the *higher percentage increase* on Railroad A’s rate, the *dollar* level of Railroad A’s rate is still lower than that of Railroad B’s rate. In any case, as Messrs. Eakin and Meitzen explain, NITL and Mr. Roman fail to establish any causal link between increased Canadian shipments and U.S. rail rates. Mr. Roman simply asserts that increased Canadian shipments were due to changes in U.S. rates

²⁷ NITL Comments at 54.

²⁸ Roman V.S. at 44 (“[t]he small increase in CN and CP rates gives them an advantage”).

without performing any actual analysis of what market factors may have influenced Canadian shipments. Eakin/Meitzen Reply V.S. at 17-18. In fact, in a number of the examples upon which Mr. Roman relies, Canadian rates were actually *higher* than U.S. rates.²⁹ Increased Canadian shipments into the United States were clearly attributable to something other than lower rates in those cases.

USDA also claims that traffic would increase as a result of mandatory switching, but it does not even attempt to provide evidence supporting its claim that “between 30 and 50 percent of the revenue lost due to competitive switching could be recaptured through traffic creation.”³⁰ USDA’s analysis, performed by Escalation Consultants, is completely unsubstantiated and based on assumptions for which no support is provided. As Messrs. Eakin/Meitzen explain in their Reply V.S. at 18-19, although USDA makes assertions about the range of elasticities of demand for transportation of corn and wheat, USDA’s numbers do not appear to come from the source USDA cites. USDA’s claim about how shipper demand elasticities would change in the presence of a second rail carrier is equally unsupported. Nor does USDA explain where the additional carloads it posits would come from. Under the NITL proposal, rate reductions would occur only on the carloads potentially subject to mandated switching, so any additional traffic induced by the rate reductions would have to come from the shippers for which mandated switching is available. But USDA has offered no evidence that those shippers have additional grain inventories that they could suddenly decide to ship by rail in response to the adoption of NITL’s proposal.

Mr. Rennie also addresses NITL’s claim that traffic increases would result from the reduced rates produced by mandated switching. Rennie Reply V.S. at 34-37. Mr. Rennie

²⁹ See, e.g., Roman V.S. at 45, 46.

³⁰ USDA Comments at 15.

notes that NITL and its supporters failed to consider any market factors that would be relevant in assessing whether traffic increases could result from lower rail rates. As Mr. Rennie explains, the two primary beneficiaries of NITL's proposal would be coal and chemical shippers. Market conditions relevant to coal transportation, including widespread announcements that coal-fired electric generating facilities are being decommissioned, certainly do not support NITL's speculation that coal traffic would increase as a result of mandated switching. As to chemicals, Mr. Rennie explains that there is no reason to believe that reduced transportation rates would have a significant impact on the volume of rail transportation of chemical products given that transportation costs are such a small percentage of the total value of chemical shipments.

3. Board Question 4 – Evidence on the Impact of the NITL Proposal on Disfavored Shippers

The commenting parties who support the NITL proposal largely ignored the Board's question regarding the potential impact of the proposal on shippers that would not have access to mandated switching. To the extent the commenting parties said anything about these disfavored shippers, they focused on whether the railroads would raise rates on the disfavored shippers to make up for revenues lost on movements that would be subject to mandated switching. One commenter, NGFA, while purporting to support the NITL proposal, nonetheless argues that NGFA shippers who do not obtain mandated switching could face substantial rate increases that "would far exceed any potential benefits to NGFA Commodity shippers as a group from the Proposal."³¹ NGFA does not, however, demonstrate that railroads would have the ability to raise rates or substantiate its assumptions about the levels to which rates for disfavored shippers would rise.

³¹ NGFA Joint Comments at 21-22.

NITL makes the contrary claim. It argues that railroads would not likely raise rates on disfavored shippers, asserting that if rate increases were possible, the railroads would have already taken them.³² As AAR noted in its opening evidence, whether market conditions would permit rate increases could only be determined at some future point in time when the NITL proposal went into effect. Whether rate increases would even be feasible is unknowable at the present.

None of the commenters other than AAR and its members addressed a different and potentially serious source of harm to the disfavored shippers – the possibility that the favored shippers would be able to use the lower rates they obtain to take market share away from the disfavored shippers. As Messrs. Eakin and Meitzen explain in their Reply V.S. at 3, the average rail rate decrease of 44% that NITL envisions for favored shippers would likely confer a significant competitive advantage on the favored shipper. This, in turn, could create a significant change in the competitive balance in the product markets where the favored shippers compete against the disfavored shippers.

Messrs. Meitzen and Eakin also note that the opening comments of various parties acknowledge that the NITL proposal would have disparate impacts on different groups of shippers. NITL itself speculates that many more shippers will fail to qualify for mandated switching than will qualify.³³ The American Chemistry Council asserts that chemical shippers will be the primary beneficiaries of the NITL proposal.³⁴ NGFA, on the other hand, asserts that

³² NITL Comments at 57.

³³ *Id.*

³⁴ Comments of the American Chemistry Council, at 5 (filed Mar. 1, 2013) (“ACC Comments”). Even among chemical shippers, support for the NITL proposal does not appear to be unanimous. The Chlorine Institute and Olin question whether the NITL proposal will be effective and argue that the Board should engage in much more intrusive reregulation of the rail industry. Chlorine Institute Comments, at 2-3; Olin Comments, at 8.

relief for agricultural shippers would be “minimal,” and USDA claims that the proposal “would benefit too few grain and oilseed shippers.”³⁵

Coal shippers appear primarily concerned that mandated switching could interfere with their ability to bring rate cases. Their comments are devoted entirely to the implications of mandated switching for market dominance determinations.³⁶ They contend that the availability of a mandated switch should not affect shippers’ ability to bring a rate reasonableness challenge because competition resulting from the mandated access “very well may be far from robust.”³⁷ The coal shipper’s market dominance concern reflects their ambivalence about the NITL’s proposal. More important, the coal shippers’ argument is inconsistent with the core premise of the NITL proposal, namely that mandated switching is necessary to introduce competition. It is inconsistent for shippers to urge the Board to implement mandated access on grounds that it will produce artificial competition that will reduce rates while at the same time arguing that they should be allowed to bring rate cases that are permitted only in the absence of competition.

Another harm that would be suffered by disfavored shippers would result from the inefficiencies and decline in service that would be produced by mandated switching. Service would be immediately affected as the direct consequence of adding inefficient and potentially complex switching operations in areas of the rail network that are not designed to accommodate such switching. Over a longer time period, service levels would decline due to the negative impact of revenue reductions on the ability of railroads to fund capital infrastructure investments. As noted above, revenue losses from mandated switching would severely constrain railroads’ ability to improve and expand the railroad network through capital investments. While these

³⁵ NGFA Joint Comments at 23; USDA Comments at 5.

³⁶ Entergy Comments, at 8-14.

³⁷ *Id.* at 11.

service declines would affect all shippers, the disfavored shippers would have to accept lower service levels without any potentially offsetting private benefits from lower rates. As discussed below, none of the parties supporting the NITL proposal made a serious attempt to address the impact of the NITL proposal on the quality of rail service.

4. Board Question 5 – Evidence on the Impact of the NITL Proposal on Service and Network Efficiency

As AAR explained in its opening comments, the Board’s fifth question is of critical importance in assessing whether the NITL proposal is in the broad public interest. Notwithstanding the importance of understanding the impact of the NITL proposal on the quality of rail service, no supporter of the NITL proposal made a serious effort to evaluate the impact of the NITL proposal on service levels and network efficiency. By failing to deal with this crucial aspect of the public interest analysis that the Board must conduct, the supporters of NITL’s proposal have left a gaping hole in the evidence they offer in support of their proposal.

a. NITL Cannot Assume that Litigation in Individual Cases under the Proposed Rule Would Adequately Deal with System-Wide Service Impacts.

NITL claims that service issues can be assumed away because its proposal allows a rail carrier to show that “switching is not feasible or is unsafe, or that the presence of such switching will unduly hamper the ability of that carrier to serve its own customers.”³⁸ This provision of NITL’s proposed rule is a prime example of the ambiguities inherent in NITL’s proposal. The provision is undefined and therefore it is impossible to know how it would be implemented. Indeed, NITL itself describes the exception in inconsistent ways. At different points in the same paragraph discussing this provision, NITL refers to the proposed standard as an inquiry into

³⁸ NITL Comments at 64.

whether switching is “safe, feasible and efficient” and whether there “will be adverse or unsafe operational effects.”³⁹ Neither formulation tracks the language of the NITL proposal.

Moreover, many of the service impacts that would result from mandated switching would be difficult to address in the context of the litigation of mandated access to an individual facility. The evidence needed to address service impacts could be extremely complex. The evidence would also have to deal with the inherent unpredictability of traffic flows in a mandated switching regime and to service impacts at a network level that would be hard to anticipate or to link to particular occurrences of inefficient switching. In addition, addressing service impacts through individual case litigation would tend to favor shippers who seek orders early rather than those who do so after service problems begin to become apparent, thus magnifying the winner/loser dichotomy inherent in NITL’s proposal. At a minimum, litigation over potential service impacts would create a huge litigation burden for the parties and the Board. The Board’s EP 711 Notice suggests that the Board may believe that a mandated switching regime might “reduce governmental intervention,”⁴⁰ but the litigation over service impacts could dramatically expand regulatory litigation.

NITL also cannot expect to shift the burden of assessing system-wide service impacts from its proposal to railroad defendants in individual proceedings under the proposed rule. NITL is proposing a network-wide approach to reciprocal switching that would use broad presumptions that could be easily applied to obtain mandated access. NITL’s proposal expressly repudiates the focus of the current competitive access rules on the circumstances in individual cases and in its place proposes a system-wide approach to reciprocal switching. But if NITL wants a system-wide rule, it must demonstrate that the system-wide effects would not injure the public interest.

³⁹ *Id.*

• ⁴⁰ EP 711 Notice at 6.

NITL cannot shift the burden of demonstrating the existence or extent of service impacts on the rail network to railroads in individual proceedings. Since NITL is the party seeking a fundamental change in regulation, NITL has the burden of showing that the change is justified and it has failed to do so.

b. The Canadian Experience with Interswitching Does Not Support NITL's Claim that Service in the United States Would Be Unaffected by Mandated Switching.

NITL also seeks to dismiss the issue of adverse service impacts by arguing that service disruptions and inefficiencies would only arise if switching were actually to occur but that actual switching would be minimal.⁴¹ However, rather than evaluate circumstances that exist in the United States, where mandated switching would be introduced under the NITL proposal, NITL relies on a misleading description of Canadian experience with interswitching as the sole basis for its claim that the Board need not worry about adverse service impacts.

NITL's first argument about Canada is that the Canadian rail network has not suffered service disruptions from interswitching so the Board should not expect service disruptions to occur in the United States from mandated switching. This argument is so simplistic that it cannot be taken seriously. NITL makes no effort to examine how interswitching is carried out in particular Canadian interchanges, the yard operations in Canada that have evolved to accommodate interswitching, where interswitching occurs, or the multitude of operating concerns that AAR pointed out in its opening evidence that would be raised by mandated switching in the United States.

Moreover, when examined at a superficial, aggregate level, as NITL proposes, the Canadian experience is meaningless in predicting the effect of mandated switching in the United

⁴¹ NITL Comments at 59-60.

States. Canadian geography and railroad configurations are so different from those in the United States that the impact of mandated switching in Canada says nothing about what would happen in the United States. Messrs. Ireland and Case explain in their reply verified statement (“Ireland/Case Reply V.S.”), at 16, that the Canadian railroad network is a relatively simple east-west rail network that evolved to connect a half dozen large metropolitan areas located in a narrow band along the U.S. border. The effect of interswitching on such a low-volume, east-west rail network as in Canada says nothing about the disruptions that would occur in a high-volume, high-density, complex web-like network that exists in the United States. As Messrs. Ireland and Case explain, there are no rail hubs in Canada that come close to the level of complexity or the volume of traffic of an area such as Chicago, St. Louis, Houston, Kansas City or many other U.S. urban areas that would be affected by NITL’s proposal. *Id.* at 24.

c. NITL’s Interswitching Calculations Are Erroneous and Misleading.

NITL’s second argument about Canada is that the level of interswitching in Canada is very low, so there is no reason to expect much disruptive switching to occur in the United States under a mandated switching regime. AAR’s witnesses Messrs. Ireland and Case show that NITL’s calculations of the level of interswitching in Canada are highly misleading and do not provide any support for NITL’s claim that very little switching would occur under the NITL proposal in the United States.

As a preliminary matter, mandatory interswitching has been a part of Canada’s regulatory regime for over 100 years. The amount of switching that occurs in a railroad network where commercial and operating practices have evolved to accommodate mandated switching over decades says nothing about the likely impact that the introduction of mandated switching would

have in a railroad network like that in the United States where the affected shippers have not previously had access to an alternative carrier.

Moreover, Messrs. Ireland and Case explain that there is no uniform interswitching experience in Canada that can be used to predict the amount of switching that would occur in the United States under NITL's proposal. The rate at which mandatory switching is used in Canada depends on specific market conditions and the configuration of rail networks and connections between carriers. For example, Messrs. Ireland and Case explain that low levels of interswitching are experienced on traffic in Eastern Canada going to the United States due to the widespread availability of competitive alternatives in these export markets. Ireland/Case Reply V.S. at 35-37. Canada's experience with interswitching in these export markets, which account for almost half of all eastern Canada's rail transportation, is irrelevant in predicting the amount of switching that would occur under NITL's proposal where the only traffic that is supposed to be subject to mandated switching is traffic that has no competitive alternatives.

NITL's estimates of the actual level of interswitching in Canada and its application of those estimates to the U.S. rail market are also seriously flawed. *Id.* at 27-33. The most obvious error is that NITL's calculation of the frequency of interswitching in Canada includes traffic of CN's and CP's U.S. subsidiaries that is not subject to Canada's interswitching regulations, thereby appearing to reduce the rate of interswitching in Canada. In any event, the results that NITL obtains using its misleading calculations of Canadian interswitching are implausible on their face. NITL claims that the NITL proposal would produce in the United States *half* the number of switches that occur in Canada even though the U.S. rail market is *seven* times larger than Canada's and has 22 times the number of potential switching locations.

In short, the only meaningful evidence that has been submitted in this proceeding on the impact of NITL's proposal on service levels in the United States is the evidence submitted by AAR and its members. That evidence showed that the NITL proposal has the potential for creating severe localized operating problems, particularly where congestion already exists, and that those local service disruptions have the potential for expanding throughout the rail network. NITL and the other supporters of the NITL proposal have provided the Board with no basis for ignoring the potentially widespread adverse service consequences of the NITL proposal.

III. The Available Evidence Demonstrates that the NITL Proposal Is Not in the Public Interest.

Notwithstanding the uncertainties inherent in predicting the impact of the NITL proposal, the evidence submitted in this proceeding strongly indicates that the NITL proposal is not in the public interest and that the Board should discontinue any further consideration of the NITL proposal. The shippers supporting the NITL proposal make no effort to conceal the fact that the only goal of the proposal is to achieve lower rates for those shippers that would be able to take advantage of mandated switching. Accordingly, the NITL proposal is nothing more than an alternative form of rate regulation that is not based on any economic principles and that is designed solely to effect a wealth transfer from railroads to a sub-group of shippers.⁴²

There is no evidence that the wealth transfer to the favored shippers that would result from reduced rates would produce any benefits for the public, such as improved service, innovation in rail markets, improvements in rail infrastructure or expanded rail service. Indeed, far from showing any benefits to the public, the only credible evidence in this proceeding shows

⁴² Not only is the sole objective to effect a wealth transfer, NITL appears to believe that the only meaningful *effect* of its proposal would be the annual transfer of \$1.3 billion from railroads to shippers. NITL assumes that the existence of a mandated switching regime would produce virtually no change in rail routes or operations – its only impact would be to reduce rate for the favored shippers.

that the public interest would be substantially harmed by mandated access by reducing the efficiency of the rail network and denying carriers the capital necessary to improve and expand the network. It would not be an appropriate use of regulatory power to enrich a group of shippers at the expense of all users of the railroad network.

A. The Supporters of the NITL Proposal Point to No Public Benefits that Would Result from Mandated Switching.

The statute does not permit the Board to adopt a mandated switching regime for the sole purpose of transferring wealth from railroads to shippers. The Board should be using its regulatory power to advance the public interest. AAR's witness Mark Fagan describes in his reply verified statement ("Fagan Reply V.S."), at 3-5, the appropriate framework for determining whether an access proposal like NITL's is in the public interest.

As Mr. Fagan explains, a public interest analysis must consider whether any benefits that the public could expect would exceed the costs that would be imposed. On the question of public benefits, Mr. Fagan explains that the mere transfer of wealth from railroads to a group of shippers does not produce any benefits to the public. *Id.* at 5. As a matter of regulatory theory, lower rates do not provide the public with any benefits unless the lower rates are accompanied by competition-driven efficiencies, service improvements, innovation, efficient infrastructure investments or expanded rail service. On the question of costs, Mr. Fagan explains that costs associated with access can be substantial and can overcome any public benefits that might otherwise exist. Mr. Fagan notes that his research has shown that the primary outcome of opening rail access in other countries has been a wealth transfer from railroads to shippers, rather than the creation of a public benefit. *Id.* at 6-7.

While the Board must focus on the public interest, NITL and its supporters have made no effort to demonstrate that public benefits would flow from mandated switching. The shipper

supporters do not attempt to demonstrate that mandated switching is intended to remedy a service problem or to give shippers the ability to obtain better service. Were that the purpose of NITL's proposal, NITL would certainly not have devoted so much effort to arguing that little if any switching would actually occur if its proposal is adopted. Indeed, NITL admits that if mandated switching were actually to occur as a result of the new regulatory regime, it would inject inefficiencies into the existing service provided by railroads. In other words, NITL asks the Board to adopt a mandated switching regime but at the same time asks the Board to hope that little switching will actually occur, since even NITL acknowledges that mandated switching would degrade service.⁴³ Whatever else can be said about NITL's position in this proceeding, it is clear that the NITL proposal is not about improving rail service.

Similarly, the chemical shippers, who expect to be the prime beneficiaries of the NITL proposal, focus their comments entirely on the potential for rate reductions rather than on the potential for improving rail service or achieving other benefits for the public. The American Chemistry Council, for example, submitted surveys devoted almost entirely to documenting dissatisfaction among chemical shippers with rate levels. Among the incidental information revealed by the surveys is that few chemical shippers appear to be concerned about the existing reciprocal switching regulation. When asked about rate and service issues they had confronted in the prior five years, only 14% of respondents identified an inability to obtain reciprocal switching. Indeed, reciprocal switching ranked third from the bottom in the list of problems of concern to chemical shippers.⁴⁴

⁴³ NITL Comments at 49, 63.

⁴⁴ ACC Comments, Attachment B at 7.

B. NITL Has No Valid Basis for Seeking a Reduction of Rates that Are Not Unreasonably High.

The supporters of the NITL proposal make no attempt to hide the fact that mandated switching is intended simply as an alternative form of rate regulation. But using mandated switching as an alternative rate regulation regime is not supported by the statute or the Board's consistent practice. The Board does not have the authority to reduce rates unless the rate exceeds a reasonable rate. *See* 49 U.S.C. §10701(d)(1). Congress did not give the Board authority to reduce rates just because a group of shippers wants to pay less for rail transportation. Congress provided that the legal predicate for a Board order reducing rates is the existence of market dominance *and* a finding that the existing rate is unreasonably high. The supporters of the NITL proposal are trying to short-cut that statutory approach in favor of an approach that they deem to be less demanding but that is inconsistent with the statutory and regulatory structure governing railroad rate regulation.

Under the NITL proposal, the predicate for obtaining a rate reduction through mandated switching is the existence of market dominance. But the mere existence of market dominance does not make the rate charged by the railroad unreasonable. The statute provides that the existence of market dominance is a prerequisite to considering whether the level of a challenged rate is unreasonably high, but a separate analysis must be made to determine whether the rate charged by the market dominant shipper exceeds a maximum reasonable rate. The NITL proposal would provide rate relief without considering the necessary second step. This step, the determination of reasonableness, is made in accordance with substantive standards that have been approved by the courts.

The rate reductions expected to be produced by the NITL proposal would have nothing to do with the Board's rate reasonableness standards and the economic principles that underlie

them. Unlike the current competitive abuse standard governing reciprocal switching, which is intended to correct failures in the market, the sole purpose of the NITL proposal is to reduce rates. But there are already standards and procedures for obtaining rate relief where it is justified. NITL cannot circumvent those standards and procedures through changes to reciprocal switching regulations designed solely to obtain rate relief.

C. The Public Interest Would Not Be Advanced by Incurring the Risk of Serious Disruptions of Rail Service Without Any Offsetting Public Benefits.

Even if it were permissible to use mandated switching as a back door mechanism for regulating rates, the Board would still need to ask whether the rate reductions produced by mandated switching are in the public interest. If the public (as opposed to the favored shippers) could not expect any benefits from the rate reductions that would be produced by mandated switching, but would instead incur costs as a result of the mandated access, it would make no sense for the Board to adopt the NITL proposal.

As discussed above, there is no evidence in the record of this proceeding that the lower rates expected to result from the NITL proposal would produce any public, competition-related benefits at all. Service would not be improved since all parties agree that mandated switching is inefficient. Innovation and investment would be discouraged since the railroad that invests time and resources into innovation and new infrastructure could have those investments forcibly taken for the use of a competitor. And since the mandated switching is supposed to be available only to shippers that do not presently have a competitive intramodal or intermodal alternative, there is no reason to expect that lower rates would expand rail service by attracting new business from other transportation providers.

On the other hand, there is abundant evidence that mandated switching could harm the public through degraded rail service, additional costs, and by denying the rail industry the capital

necessary to maintain and expand the rail network. Mr. Fagan explains that net public value is created only if any public benefits from mandated switching outweigh the additional costs produced by mandated switching. As a matter of theory and empirical research, Mr. Fagan explains that it takes very little additional costs to wipe out any public benefits that might otherwise exist.

NITL and its supporters virtually ignored the question of the costs that would be created by mandated switching. Instead, NITL argues that the Board can deal with the question of service disruptions in individual proceedings under the proposed rule. But NITL is proposing sweeping changes in regulation, and NITL therefore has the burden to show that its proposed rule will not adversely affect rail service, particularly service to rail customers that would not be able to invoke the new mandatory switching rules. NITL cannot kick the issue down the road to be dealt with in individual proceedings. Nor is it appropriate to impose the burden of proof onto railroads in individual proceedings to demonstrate that service would be impaired by the rule change that NITL is proposing.

NITL also claims that the Board does not have to worry about the additional costs associated with inefficiency and service degradation because the actual amount of switching that would occur under its proposal would be “very small” or “miniscule.”⁴⁵ NITL’s theory that very little switching would occur appears to be based in large part on NITL’s acknowledgement that mandated switching would often be inefficient. From this observation, NITL draws the conclusion that railroads and shippers will seek to avoid those inefficiencies by simply agreeing on lower rates that preserves the role of the more efficient incumbent. Even if this were true, the Board could not justify, from a public interest perspective, the adoption of a regulatory option

⁴⁵ NITL Comments at 58.

that all parties agree would be inefficient and potentially damaging to rail service. The Board should not be promoting regulatory changes that all parties agree would create unnecessary inefficiencies if they were used.

Moreover, the Board cannot restructure existing commercial practices based on NITL's wishful thinking that mandated switching will be too limited to spawn operating problems. NITL has not provided meaningful evidence of how much traffic would divert to an alternative railroad, just supposition. As Eakin/Meitzen explain, NITL's reasoning is suspect. NITL's analysis of its proposal depends on two propositions that are difficult to reconcile. On the one hand, NITL appears to believe that railroads will offer massive rate reductions (more than 40% on average) to avoid switching. On the other hand, NITL maintains that switching will rarely, if ever, occur. It seems very unlikely that railroads would reduce rates in the manner NITL posits in the absence of a credible threat that switching would occur, and it seems equally unlikely that railroads would perceive a credible threat if actual switching rarely, if ever, occurred.

Eakin/Meitzen Reply V.S. at 8.

It is impossible to know in advance how much switching would occur if the NITL proposal were adopted and therefore how large the service disruptions and additional costs would be. But it is reasonable to assume that shippers vigorously seeking the right to force incumbent railroads to switch traffic to alternative carriers will actually use that right in practice. And it is clear that if switching occurs to a substantial extent, the result would be a major degradation in rail service and the imposition of additional costs. Mr. Rennie's testimony in AAR's opening evidence showed the potentially serious nature of the service failures that could result if a substantial number of shippers were to exercise their right to require the incumbent to

become a switch carrier. The Board should not expose the public to service degradation and additional costs when the public stands to gain nothing from the NITL proposal.

D. It Is Not in the Public Interest for the Board to Pick Winners and Losers among Rail Shippers.

Finally, the record is clear that the NITL proposal is designed to provide a select group of shippers with an artificial rate reduction. Shippers that would not be able to use mandated switching would bear the costs of NITL proposal in several ways. Disfavored shippers who cannot obtain mandatory switching would experience the service disruptions that would result from injecting inefficient switching operations into today's efficient rail network. Over the longer term, disfavored shippers would also suffer the adverse effects on service resulting from the constraint that NITL's proposal would put on railroads' ability to fund infrastructure investments. Disfavored shippers would also be placed at a competitive disadvantage by the substantial rate decreases that NITL contends would flow to the favored shippers. Thus, the disfavored shippers would not only bear costs for services from which they obtain no benefit but would also likely lose market share to favored shippers due to the market distortions created by mandatory shipping.

The Board should not use its regulatory authority to pick winners and losers among rail shippers. The fact that shipper support for the proposal is lukewarm corroborates AAR's expectation that adoption of the NITL proposal would put the Board in the inappropriate position of picking winners and losers among shippers.⁴⁶

⁴⁶ See, NGFA Joint Comments (asserting that benefit to agricultural shippers from proposal would be "minimal"; Opening Comments of Alliance for Rail Competition et al. (filed Mar. 1, 2013) (asserting that many agricultural shippers will not benefit from the NITL proposal); Chlorine Institute Comments (suggesting that NITL proposal is a distraction from broader reregulation); Olin Comments (same); Entergy Comments (expressing concern that NITL proposal would interfere with ability of coal shippers to bring rate cases). Cf. USDA Comments (asserting that too few agricultural shippers would benefit from the NITL proposal).

IV. Conclusion: The Board Should Discontinue Consideration of the NITL Proposal

NITL's claim in its opening evidence that the Board now has enough information to treat this proceeding as an ANPR and to move directly to a rulemaking is empty rhetoric.⁴⁷ NITL makes this claim in its opening evidence and draws its conclusions without having had an opportunity to review the evidence submitted in this proceeding by any other party. In essence, NITL is contending that whatever other interested parties may have to say about its proposal is irrelevant, that the Board should ignore the submissions of other parties, and that nothing any other party could say could possibly have any bearing on a decision by the Board to move forward.

To the contrary, the record contains more than enough evidence that the NITL proposal is not in the public interest and that no further effort should be spent considering it. The Board initiated this proceeding because NITL failed to address crucial aspects regarding the impact of its proposal. Although in other rulemaking proceedings the Board has concluded that such a failure to support a petition for rulemaking justifies dismissal of the petition,⁴⁸ the Board did not dismiss NITL's petition here. Instead, the Board gave NITL a second chance while at the same time making clear that in the absence of the data it had requested it could not move forward. NITL and the supporters of its proposal have failed once again to provide information sufficient to make an affirmative assessment. NITL's proposal remains incomplete, ill-defined and lacking in an affirmative underlying rationale. There is no reason to give NITL further opportunity to correct the deficiencies in its proposal and evidence or to proceed further with consideration of NITL's petition.

⁴⁷ NITL Comments at 13-14.

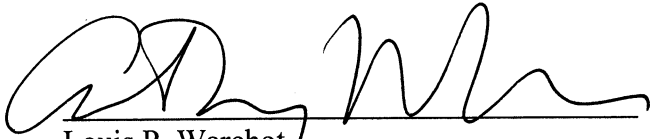
⁴⁸ See, e.g., *Market Dominance Rulemaking Petition*, slip op. at 7.

The Board should deny NITL's Petition and discontinue further consideration of NITL's proposed changes to the Board's existing competitive access rules.

Respectfully submitted,

Of Counsel:

Paul A. Guthrie
Paul Hitchcock
James A. Hixon
Theodore K. Kalick
Jill K. Mulligan
Roger P. Nober
John P. Patelli
David C. Reeves
Louise A. Rinn
John M. Scheib
Peter J. Shudtz
Gayla L. Thal
Richard E. Weicher
W. James Wochner



Louis P. Warchot
Association of American Railroads
425 Third Street, S.W.
Suite 1000
Washington, D.C. 20024
(202) 639-2502

Samuel M. Sipe, Jr.
Anthony J. LaRocca
Frederick J. Horne
Steptoe & Johnson, LLP
1330 Connecticut Avenue, N.W.
Washington, D.C. 20036
(202) 429-6446

*Counsel for the Association of
American Railroads*

**BEFORE THE
SUFACE TRANSPORTATION BOARD**

	)	
	)	
Petition for Rulemaking to Adopt	)	
Revised Competitive Switching	)	Docket No. EP 711
Rules	)	
	)	
	)	

Verified Statement of

Michael R. Baranowski

and

Richard W. Brown

Filed: May 30, 2013

I. INTRODUCTION

We are Michael R. Baranowski and Richard W. Brown of FTI Consulting, Inc. Mr. Baranowski is a Senior Managing Director and head of FTI Consulting's Network Industries Strategies (NIS) practice. Mr. Brown is a Director in the NIS practice and is responsible for conducting detailed railroad market studies for a variety of railroad clients. We filed a verified statement¹ as part of the Opening Comments of the Association of American Railroads (AAR) on March 1, 2013.² Details of our backgrounds and qualifications are set forth in Exhibits 1 and 2 to the opening verified statement. We have been asked by AAR to review and provide analysis on the opening comments filed with the Board by the National Industrial Transportation League (NITL).³ In Section II we describe shortcomings in NITL's analysis that demonstrate that NITL has substantially understated the number of carloads potentially affected by its proposal.

II. REVIEW OF ANALYSES PROVIDED IN PUBLIC COMMENTS

On its face, the NITL analysis quantifies something different from NITL's proposal to the Board.⁴ We explained in our opening verified statement that, under NITL's proposal, as characterized by NITL, mandatory switching by a Class I rail carrier would be imposed if four conditions were met: (1) the shipper (or group of shippers) is served by a single Class I rail carrier; (2) there is no effective intermodal or intramodal competition for the movements for

¹ Verified Statement of Michael R. Baranowski and Richard W. Brown (filed March 1, 2013) ("Baranowski/Brown V.S.").

² Opening Comments of the Association of American Railroads (filed March 1, 2013) ("AAR Comments").

³ Opening Submission of the National Industrial Transportation League (filed March 1, 2013) ("NITL Comments"). We reviewed opening comments filed by the U.S. Department of Transportation and the U.S. Department of Agriculture but, due to the lack of workpapers, we were unable to reproduce or verify their analyses.

⁴ Petition for Rulemaking of the National Industrial Transportation League (filed July 7, 2011) ("NITL Petition").

which mandatory switching is sought; (3) there is or can be “a working interchange” within a “reasonable distance” of the shipper’s facility; and (4) switching is safe and feasible, and does not “unduly hamper” existing service. As described below, NITL did not adhere to the elements of its own proposal and made numerous methodological choices that minimize the apparent impact of its proposal.

NITL modeled only some of its conclusive presumptions. For example, NITL did not identify carloads that would qualify under its 75% conclusive presumption.⁵ Even for those conclusive presumptions NITL modeled, it did not necessarily implement them as defined in its proposal, and it made choices that tended to limit the amount of qualifying traffic. As we explain below, in many cases, the logic underlying NITL’s identification of affected carloads is not readily discernible.

Further, NITL’s analysis did not address the potential for shippers who do not meet the conclusive presumption to nevertheless seek mandated switching. NITL’s proposal does not limit the access remedy only to shippers who meet the presumptions. Under NITL’s proposal a shipper could obtain mandated switching even if it did not satisfy a conclusive presumption. NITL, therefore, left out of its analysis a potentially large number of carloads. For example, there may be many situations where a shipper that is served only by a single railroad would have little difficulty demonstrating that it does not have intermodal alternatives and therefore lacks

⁵ Under NITL’s 75% rule, a lack of effective competition would be presumed if “the Class I carrier . . . has handled 75 percent or more of the freight volume transported of the movement(s) for which such switching is sought for the twelve month period prior to the petition.” NITL Petition at 67. Qualifying under this presumption effectively turns on whether the rail share of transportation (as opposed to transportation by other modes) for a given commodity/origin-destination combination exceeds 75%.

effective competition even if its rates are too low to satisfy the 240% R/VC conclusive presumption.⁶

NITL's estimate of potentially affected carloads is not understated simply because NITL left out important components of its proposal. NITL's quantification of the carloads it identified also suffers from methodological and data flaws. For example, NITL includes in its estimate some carloads at stations served by more than one carrier that would nonetheless qualify for mandatory switching because the shipper facility is itself served by only a single Class I carrier. NITL refers to this group as "captive at industry." While this portion of the NITL analysis covers traffic discussed but ultimately not included in our opening analysis, it is clear that NITL's rules for identifying such carloads suffer from the same infirmities (described below) as its analysis of carloads at stations served by only a single Class I railroad. As a result, NITL's "captive at industry" carload counts are most likely understated.

Overall, NITL has substantially understated the amount of traffic potentially subject to mandated switching under its own proposal.

The fact that NITL made methodological choices that resulted in an understated impact analysis not only illuminates NITL's motivations, but also highlights the data limitations we described in our opening statement that result in some inevitable degree of uncertainty regarding the impact of NITL's proposal. Given the nature of the waybill data that the Board made available to the parties, even the most objective impact analysis requires assumptions and will yield approximations. But unavoidable assumptions should not be confused with the deliberate understatements.

⁶ It appears unlikely that a shipper would be able to demonstrate a lack of effective competition if it could not meet NITL's alternative 75% conclusive presumption, but NITL's estimates do not include traffic that qualifies under that alternative presumption either.

We address NITL's analyses and assumptions under three basic categories: Traffic Characteristics, Station Identification, and Shipper Facilities Served by a Single Railroad.

A. Traffic Characteristics

1. The 75% Rule. NITL's proposal contains two conclusive presumptions relating to the absence of effective competition, the 240% R/VC rule and the 75% rule. NITL ignored the 75% rule and chose only to identify those carloads that would qualify for mandatory switching because their rates produce an R/VC of at least 240%.⁷ As we described on opening, there are data limitations that make it difficult to assess the effect of the 75% rule, but that certainly does not justify treating the presumption as if it would have no effect. The Board made available to the parties its 2010 (and subsequently 2011) confidential carload waybill sample (CWS), but the CWS does not identify shippers or provide data on non-rail shipments. It is therefore impossible to determine from the CWS whether a given movement would satisfy the 75% rule. To ensure that our analysis included the impact of the 75% rule, we adopted a default assumption that at stations served by a single rail carrier, the serving rail carrier is handling 75% or more of total shipper volumes. *Baranowski/Brown V.S.* at 3. Our assumption, while not precise, is clearly more reasonable than NITL's apparent assumption that the 75% rule can be ignored. As AAR described on opening, there are likely to be many situations where a rail carrier has a 75% share of transportation and that situation is likely to be much more common than having rates that exceed a 240% R/VC threshold. AAR Comments at 40-42. *See also Comments of Norfolk Southern Railway Company*, 47 (filed March 1, 2013) ("NS Comments")

⁷ NITL acknowledges this omission only in a footnote. NITL Comments at 7. Mr. Roman never expressly acknowledges that he does not address the 75% Rule at all. Verified Statement of Henry Julian Roman (filed Mar. 1, 2013) ("Roman V.S."). Although he describes his task as calculating "the number of carloads that would qualify for access," Roman V.S. at 4, which would presumably include the 75% rule, he ignores the 75% rule when actually presenting his results, describing them as "applying the 240% R/VC Threshold and the 30-mile distance." Roman V.S. at 29.

(discussing contract volume commitments). In addition, any shipper could adjust its transportation mix going forward to take advantage of the presumption.

2. CN, CP, and KCS Traffic. NITL chose to exclude CN, CP, and KCS traffic from its analysis. Although the Board recognized that commenters might wish to submit partial studies, it is obvious that doing so results in an understatement of the number of carloads potentially affected. Our analysis, which included CN, CP, and KCS traffic, presents a more complete picture of the potential impact of the NITL proposal.

3. Movements where the Incumbent Remains the Only Railroad at Origin or Destination. NITL's proposal provides that a mandatory switching order may be obtained as long as effective competition is lacking and as long as a shipper facility is located within a "reasonable" distance of an interchange. Nowhere does the NITL proposal link access for one end of a shipment to whether the other end is served by a single railroad or by multiple railroads. Nevertheless, NITL's analysis arbitrarily imposes a rule that what happens at the other end of a movement matters. The NITL analysis assumes that traffic originating or terminating at a newly-opened location would be unaffected by the new access rules if the other end of the movement remains closed on the incumbent carrier. *Roman V.S.* at 25-26. Excluding such shipments understates the potential impacts of NITL's proposed rules.

Our analysis on opening reasonably included movements of this type. The NITL proposal, on its face, contemplates that shippers *could* obtain a switching order for such movements. Given the many doubts about how the NITL proposal would be implemented in practice, it did not appear justified to exclude from consideration outcomes that the NITL proposal allows. Moreover, it is quite possible that shippers would choose to obtain a switching order in such circumstances. A shipper might wish to use a switching order to lay the foundation

for a challenge to bottleneck rates under the contract exception, for example. A shipper could also, conceivably, have reasons that it prefers for the long-haul portion of a movement to be handled by a railroad other than the incumbent.

In addition, there is clear potential for shippers to expand the scope of mandated switching by obtaining a mandatory switching order for one commodity/origin-destination combination and using it to obtain transportation to a different destination or from a different origin. The proposed NITL language certainly appears to limit an order to a specific “movement,” and therefore to a specific commodity/origin-destination combination, but that limitation would be extremely difficult to enforce as a practical matter. Typically, the carrier performing the reciprocal switching spots empties from the non-serving carrier at the industry and picks up and delivers loads to the non-serving carrier without ever receiving full waybill information. Thus, the serving carrier would not have sufficient information to determine whether a shipper improperly exceeded a mandatory switching order by including movements that were not covered by the order. Nor is it clear what a railroad’s remedy would be even if it were able to determine that a shipper was improperly diverting traffic under a mandatory switching order.

Our carload analysis focuses on the characteristics of each sole-served station in determining whether or not carloads would be affected by the proposed rule, which is more consistent with the actual language and likely impact of the NITL proposal.

B. Station Identification

1. Identification of Stations Served by a Single Class I Railroad.

Different methods exist for identifying and distinguishing between stations served by only a single Class I railroad (“closed” stations) and stations served by more than one railroad (“open” stations). The approach used by NITL overstates the number of stations served by more than one

railroad, thereby understating the number of stations that could be subject to a switching order under the NITL proposal. Specifically, the NITL analysis simplistically considers a station open when the Station Master shows multiple Class I carriers serving it. This occurs because the Station Master will show multiple railroads, even where only one carrier can originate or terminate traffic. For example, the Station Master would show multiple railroads at a station in instances where a second carrier only has trackage or operating rights through a station and no rights to serve the station. In our analysis, we followed a cleaner approach. Rather than attempting to identify open stations and assuming that the remaining stations were closed, we identified as closed stations those where only one carrier was shown as originating or terminating traffic in the CWS. This approach avoided the problem of classifying stations as open where the other carrier(s) do not have access to shippers along the route.

2. Reasonable Distance to an Interchange. NITL’s proposal specifies that the distance to interchange will be presumed reasonable if a shipper facility is “within a radius of 30 miles of an interchange.” NITL Petition at 68. Although there are obvious problems associated with using radial, or air miles, some of which were illustrated in the opening comments of AAR and its member railroads, that is what the NITL proposal calls for and NITL has not proposed any modifications. Nevertheless, NITL’s analysis on opening departed from the language of its own proposal and used “rail” miles. This effectively reduced the distance to an interchange that NITL treated as “reasonable” and resulted in reporting fewer cars as qualifying for mandated switching. The approach we followed on opening – using a 30-mile radius – is consistent with the specific language of the NITL proposal and also reflects the likelihood that shippers within a 30 mile radius of working interchanges but more than 30 rail miles distant would be entitled to argue for access. NITL’s analysis of its own data suggests that

the number of carloads potentially affected by the new rules varies substantially depending on what mileage is used, so it is clear that choosing to use “rail” miles rather than a 30-mile radius resulted in substantially fewer potentially affected cars. See NITL Comments at 44 (indicating that varying the distance to interchange by 10 miles produced more than a 20% swing in the number of affected carloads).

3. Identification of Potential Interchange Points. The NITL proposal speaks broadly of imposing mandatory switching at points where there “is or can be a working interchange.” NITL Petition at 65. NITL used a restrictive methodology for identifying potential interchange locations that is not consistent with this broad language. NITL includes as an interchange points in the CWS where railroads show interchanged traffic and any point that is jointly served by two carriers. While this includes all points where traffic was commercially interchanged during 2010 and some additional locations, it excludes other stations that Railinc affirmatively shows to be interchanges. Such stations would appear to qualify as potential interchange locations under the NITL proposal and excluding them had the effect of reducing the number of stations, and therefore carloads, for which NITL reported that a mandatory switching order could be obtained.

C. Shipper Facilities Served by a Single Class I Railroad at “Open” Stations

Under the NITL proposal, a shipper qualifies for mandated switching depending upon whether the shipper’s *facility* – rather than the station at which a shipper is served – is served by a single Class I railroad. As a result, shippers located at stations where there are multiple railroads may nevertheless qualify for mandated switching if the shipper facility itself is served only by a single Class I railroad. We pointed out on opening that our number of potentially affected carloads did not include carloads from stations served by more than one railroad. While we believe that the number of potentially qualifying carloads at such locations is likely quite

large, we were unable to develop a methodology for reliably identifying carloads of this type from the waybill data.

NITL purports to have identified such traffic by relying on volumes and R/VC ratios. There is no evidence NITL's standards are valid. NITL's R/VC based analysis essentially reasons that 240% is a "high" R/VC ratio and that carloads would only have a "high" R/VC ratio if the originating or terminating facility is served only by a single railroad. Establishing a 240% R/VC cutoff at jointly served stations is entirely arbitrary. NITL cannot demonstrate that shippers from the same jointly served stations with R/VCs below the 240% level always have multiple rail options. Indeed the record in this proceeding demonstrates that is not true.⁸ Nor has NITL shown that all shippers above that level have only a single rail option or otherwise lack competitive alternatives.⁹ In other words, there is no reason to believe that NITL's estimate of "captive at industry" traffic is meaningful since it almost certainly includes shippers who are not served by only one railroad and excludes shippers that are.

In all likelihood, NITL's approach to customers at open stations understates the number of potentially qualifying carloads associated with stations served by more than one railroad. As we noted above, NITL's analysis completely ignores the 75% rule. This applies both for its analysis of carloads at stations served by a single railroad and for its analysis of additional carloads at stations served by more than one railroad. Moreover, the 240% R/VC cutoff NITL uses does not capture the carloads that would qualify under the 75% rule and therefore understates the number of affected carloads.

⁸ See Comments of Roanoke Cement Co., at 5-6 (stating that Roanoke is served by only one railroad but has rates below 240%).

⁹ See *M&G Polymers USA, LLC v. CSX Transportation, Inc.*, STB Docket No. NOR 42123 (served Sept. 27, 2102) (finding that railroad lacked market dominance on certain routes with rates over 240%).

NITL's study is not a reasoned analysis. Instead, in attempting to identify potentially qualifying carload at stations served by more than one railroad, NITL again modeled something other than its proposal: NITL effectively presented the carloads it believes would be affected if the Board simply ignored whether shippers are served by only one railroad and instead allowed mandated switching for shippers whose rates produced R/VC ratios above 240%.

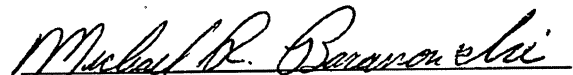
III. CONCLUSION

Given the ambiguities in NITL's proposal and data limitations, it is difficult to develop a precise number of carloads that would be eligible for mandatory switching. Nevertheless, it is clear that modeling and methodological choices made by NITL in preparing its estimate result in a substantial understatement of the likely impact of its proposal.

VERIFICATION

I, Michael R. Baranowski, verify under penalty of perjury under the laws of the United States that the foregoing is true and correct and that I am qualified and authorized to file this statement.

Executed on May 29, 2013.


Michael R. Baranowski

VERIFICATION

I, Richard W. Brown, verify under penalty of perjury under the laws of the United States that the foregoing is true and correct and that I am qualified and authorized to file this statement.

Executed on May 28, 2013.

A handwritten signature in black ink, appearing to read "Richard W. Brown", written over a horizontal line.

Richard W. Brown

**BEFORE THE
SURFACE TRANSPORTATION BOARD**

**STB EX PARTE NO. 711
PETITION FOR RULEMAKING TO ADOPT REVISED
COMPETITIVE SWITCHING RULES**

**JOINT VERIFIED REPLY STATEMENT
OF
B. KELLY EAKIN
AND
MARK E. MEITZEN
CHRISTENSEN ASSOCIATES**

MAY 30, 2013

Table of Contents

INTRODUCTION	1
THE NITL PROPOSAL’S CREATION OF WINNERS AND LOSERS IS CONFIRMED BY OTHER PARTIES	1
THE NITL PROPOSAL REPRESENTS USE OF THE REGULATORY PROCESS FOR THE PURPOSE OF REDISTRIBUTION	5
NITL’S ANALYSIS OF THE PRICE AND REVENUE IMPACTS OF THEIR PROPOSAL IS FLAWED AND DOES NOT PROVIDE SUPPORT FOR ITS PROPOSAL	7
COST-BASED APPROACHES TO RATE SETTING ARE ECONOMICALLY ARBITRARY AND LIKELY PRODUCE ECONOMICALLY INEFFICIENT OUTCOMES.....	12
VALID EMPIRICAL EVIDENCE HAS NOT BEEN PRODUCED ON THE LIKELIHOOD THAT THE NITL PROPOSAL WILL CAUSE TRAFFIC INCREASES	15
CONCLUSION	20

INTRODUCTION

We are B. Kelly Eakin and Mark E. Meitzen of Christensen Associates. We filed a Joint Verified Statement in support of the comments of the Association of American Railroads (AAR) in the initial phase of this case.¹ This Reply Statement responds to the opening comments and emphasizes the following points:

- The NITL proposal would create winners and losers among rail shippers, which has been confirmed by other parties in this proceeding, including NITL.
- The NITL proposal is redistributive in nature rather than efficiency improving and might reduce social welfare.
- Flaws in NITL's analysis of the price and revenue impacts of their proposal result in no useful information being provided to the Board on these issues.
- Cost-based rates such as the Canadian interswitching rates relied upon in the NITL analysis would result in economic distortions.
- No credible empirical evidence on the likelihood of traffic increases resulting from the NITL proposal has been provided in this proceeding.

THE NITL PROPOSAL'S CREATION OF WINNERS AND LOSERS IS CONFIRMED BY OTHER PARTIES

In our Initial Statement, we explained that the NITL mandatory switching proposal would be an asymmetric change in regulation that creates winners and losers—the proposal targets a select set of shippers in a select set of markets to be the beneficiaries of proposed mandatory switching rules. The creation of asymmetric impacts among shippers and railroads by the NITL proposal would occur across a number of dimensions.

¹ Joint Verified Statement of B. Kelly Eakin and Mark E. Meitzen, STB Ex Parte No. 711, March 1, 2013 ("Initial Statement").

To the extent switching occurs under the NITL proposal, not all of the costs created by the proposal would be borne by the beneficiaries, particularly costs created by any declines in service quality and railroad efficiency. The extra costs to the railroad system introduced by the proposal that are not incurred by the covered shippers (i.e., externalities) would be borne by other rail shippers who do not benefit from the NITL proposal and by railroads. The proposal is intended by NITL to confer rate reductions upon a select group of shippers, but would at the same time broadly add to and reallocate cost burdens among other shipper groups and rail service providers. Furthermore, long-term consequences could arise if reductions in railroad contribution lead to reductions in railroad investments.²

We also noted that excluded shippers would suffer a disadvantage in product market competition with other shippers, especially those excluded shippers who compete in the same product markets as covered shippers. Excluded shippers might also be competitively disadvantaged by the NITL proposal relative to: other firms in their industry that were not affected to the same extent or at all by any negative externalities caused by actual switching generated by the proposal; and/or producers of other substitutable goods. This competitive disadvantage might have consequences for export markets as the locations of these other firms in the same industry or in substitute goods industries may be in other countries. The change in competitive conditions between covered and excluded shippers could lead to an unintended reallocation of

² Initial Statement, pp. 6-7.

resources and markets, with excluded shippers being competitively disadvantaged in the product markets in which they participate.³

NITL contemplates that the small subset of shippers who can obtain mandatory switching will receive significant rate decreases. Under NITL's "full competition" scenario, NITL's estimated impacts translate into an average decrease in rail rates of 44 percent for benefitted shippers.⁴ As we discuss below, there are fundamental errors in NITL's analysis of the level to which rates could be expected to fall and, therefore, with NITL's entire analysis of the likely revenue loss to railroads. Without accepting that NITL's numbers are correct, it is worth noting the magnitude of the one-sided benefit that NITL believes covered shippers would obtain. Furthermore, as discussed above, covered shippers are likely to gain competitive advantage (and excluded shippers competitive disadvantage) in product markets. Rail rate declines of the size anticipated by NITL could create a significant change in the competitive balance of these product markets.

Our observation that there would be a skewed distribution of benefits created by the NITL proposal has been acknowledged in the comments of various parties in this proceeding, including NITL. On page 57 of their initial comments, NITL states that:

³ Initial Statement, pp. 7-8.

⁴ See Opening Submission of the National Industrial Transportation League, STB Ex Parte No. 711, March 1, 2013 ("NITL Submission"), p. 53, Table 14; and Verified Statement of Henry Julian Roman, March 1, 2013 ("Roman Statement"), p. 32, Table 7, which shows potentially impacted railroad gross revenue of \$2,929,210,096 and Shipper Savings/Carrier Revenue Reduction of \$1,293,650,873. Dividing this revenue reduction by the base of impacted gross revenues yields a 44 percent reduction: $\$1,293,650,873 / \$2,929,210,096 = .4416$.

There are many, many more captive shippers on the nation's railroads than the number of captive shippers that will potentially qualify for competitive switching under the CSP.⁵

As noted by the American Chemistry Council, chemical shippers expect to be major beneficiaries of the NITL proposal:

Chemical shipments have the largest potential savings of any commodity group
...⁶

On the other hand, shippers of agricultural commodities anticipate they would see little benefit from the NITL proposal, as noted by the National Grain and Feed Association:

[T]he proposal as written will have little beneficial application to NGFA
Commodity rail shippers.⁷

The U.S. Department of Agriculture agrees:

Agricultural shippers have indicated to USDA they are concerned the NITL proposal would benefit too few grain and oilseed shippers.⁸

While parties anticipate that only certain groups would benefit from the NITL proposal, there is no recognition by proposal advocates that others would be harmed by the proposal. In fact, NITL asserts that, "The League strongly believes that the regulatory and economic impacts on captive shippers not covered by the CSP would be nil."⁹ It does not appear that any party favoring the NITL proposal has recognized or acknowledged the potential harms we have discussed, including: network service quality

⁵ NITL Submission, p. 57. Also see Roman Statement, p. 47.

⁶ Comments of the American Chemistry Council, STB Ex Parte No. 711, March 1, 2013, p. 5.

⁷ Joint Opening Submission of the National Grain and Feed Association, the Agricultural Retailers Association, National Barley Growers Association, USA Rice Federation, National Oilseed Processors Association, the National Chicken Council, National Association of Wheat Growers, National Council of Farmer Cooperatives, and National Corn Growers Association, STB Ex Parte No. 711, March 1, 2013, p. 7.

⁸ Comments of the U.S. Department of Agriculture, STB Ex Parte No. 711, March 1, 2013, p. 5.

⁹ NITL Submission, p. 56 (emphasis added).

issues and the creation of negative externalities; potential competitive product market disadvantages and market shifts; and reduced railroad investment and diminished investment incentives that may cause long-term service and performance issues.

THE NITL PROPOSAL REPRESENTS USE OF THE REGULATORY PROCESS FOR THE PURPOSE OF REDISTRIBUTION

The creation of winners and losers that would result from the NITL proposal can be put in the context of the economic theory of regulation. The economic literature contains a robust body of work on the causes and consequences of regulation.¹⁰ At one end of the discussion is the view that regulation is driven by the public interest.¹¹ In the public interest view, unregulated market failures reduce social welfare ultimately leading to regulatory intervention that increases social welfare. At the other end of the discussion is the view that regulation is driven by private interests attempting to redistribute value.¹² This view holds that interest groups seek the transfer of economic rents to their pockets, regardless of the impacts on social welfare.

¹⁰ A comprehensive review of much of this literature can be found in Johan den Hertog, "Economic Theories of Regulation," Chapter 1 in *Regulation and Economics*, Roger J. Van den Bergh and Alessio M. Paccas (eds.), Edward Elgar Publishing, 2012.

¹¹ The public interest theory of regulation can be traced to A.C. Pigou (1920, pp. 293-299) *The Economics of Welfare*, London: Macmillan and Co. The public interest theory underlies much of the mid-twentieth century literature on public utility regulation. See for example, J.C. Bonbright (1961) *Principles of Public Utility Rates*, New York: Columbia University Press.

¹² Notable papers on the private interest theory of regulation include: George J. Stigler "The Theory of Economic Regulation", *Bell Journal of Economics and Management Science* Vol. 2, No. 1 (Spring 1971), pp. 3-21; Richard A. Posner, "Theories of Economic Regulation", *The Bell Journal of Economics and Management Science*, Vol. 5, No. 2 (1974), pp. 335-358; Sam Peltzman, "Towards a More General Theory of Regulation," *Journal of Law and Economics*, Vol. 19 (1976), pp. 211-240; and Gary S. Becker, "A Theory of Competition Among Pressure Groups for Political Influence," *The Quarterly Journal of Economics*, Vol. 98, No. 3 (Aug., 1983), p. 371-400.

Unfortunately, but clearly, the mandatory switching proposal is driven by the redistribution motive rather than being in the public interest. Two factors are particularly revealing of the redistribution objective of the mandatory switching proposal. First, the proposal is intended to convey substantial rate benefits to a small group with the costs being borne by a large group of non-beneficiaries. This is precisely the result predicted by the redistributive theories of regulation. For example, Becker argues that “politically successful groups tend to be small relative to the size of the groups taxed to pay their subsidies.”¹³ The concentration of substantial rate benefits makes the lobbying effort worth it while the diffusion of the cost discourages resistance to the change by individual non-beneficiaries. In short, the greater the concentration of benefit from a regulation and the more diffuse the burden on non-beneficiaries, the louder the alarm bell should sound that the proposed regulation is a redistribution that is not in the public interest.

Second, the evidence indicates that there will be little, if any, increase in traffic as a result of the mandatory switching proposal.¹⁴ This means there is little or no resource reallocation and no source of social welfare gain. That is, the impact is a redistribution of value rather than an increase in economic efficiency. In fact, by introducing costs that fall on non-beneficiaries, the proposal may actually reduce social welfare. Furthermore, as we pointed out in our Initial Statement, to the extent that there is some demand response by the beneficiaries, the adverse impact on railroad

¹³ Gary S. Becker, “A Theory of Competition Among Pressure Groups for Political Influence,” *The Quarterly Journal of Economics*, Vol. 98, No. 3 (Aug., 1983), p. 385.

¹⁴ See discussion at 14-15, below.

contribution worsens.¹⁵ This means that ultimately the “tax” on non-beneficiaries increases.

NITL’S ANALYSIS OF THE PRICE AND REVENUE IMPACTS OF THEIR PROPOSAL IS FLAWED AND DOES NOT PROVIDE SUPPORT FOR ITS PROPOSAL

NITL assumes prices for covered shippers would fall as a result of the proposal but does not elaborate on how market mechanisms would produce this result. NITL’s model for how its proposal would affect railroad behavior appears to be incomplete and internally inconsistent. For example, a key assertion in NITL’s overall impact analysis is that very little switching will occur.¹⁶ NITL bases this assertion on observation of the Canadian market, but also appears to recognize that introducing a switch into a movement is inefficient¹⁷ and that adverse impacts on the efficient operation of the rail network would flow from diversion of traffic from the incumbent carrier.¹⁸ NITL concludes that “[i]n all likelihood, traffic will be actually switched . . . primarily when the competing carrier is able to offer a more efficient or direct route.”¹⁹ According to NITL this will be a rare event,²⁰ presumably because railroads generally provide the most efficient routing in the first place. This admission confirms the private interest

¹⁵ Initial Statement, p. 16.

¹⁶ For example, see NITL Submission, p. 60.

¹⁷ NITL Submission, p. 49.

¹⁸ NITL Submission, p. 59.

¹⁹ NITL Submission, p. 63 (emphasis in original).

²⁰ See NITL Submission, p. 60. Citing Canadian experience, NITL states that “Less than one-tenth of the total traffic that qualifies for interswitching in Canada is actually interswitched and moves over the new competitive route,” and further asserts that “There is no reason to believe that the same dynamic would not take place in the United States under the CSP.”

motivation behind the NITL proposal. That is, the objective is redistributing value rather than improving market performance.

At the same time, NITL contends that “the incumbent carrier has a huge incentive to keep the business,”²¹ which presumably is the mechanism by which rates would be driven down. However, if actual switching, is indeed, a rare event, is there really a credible threat of losing traffic that would create a “huge” incentive for the incumbent to lower rates? As a matter of logic, it would seem that this incentive only arises if there is a real possibility – a credible threat – that switching will occur and the incumbent could actually lose traffic and contribution. It is difficult to reconcile NITL’s notion that switching will rarely, if ever, occur, with NITL’s notion that the threat of switching is sufficiently real to force carriers to lower prices by NITL’s asserted average of 44 percent.

Another missing piece in the NITL analysis is the role of mandated access rates in the operation of NITL’s model. NITL does not explicitly model the effect of mandated access rates on market behavior or outcomes, it simply uses its assumed access rate (discussed in next section) for the mechanical calculation of carload and revenue impacts. This approach misses important parts of the picture. For example, if mandated access rates are set below rates that railroads would negotiate, there would be an amount of switching greater than the optimal level (which would adversely impact network efficiency and likely create negative externalities) or, if NITL’s assertion that only the threat of switching is necessary to create rate reductions, there would be a

²¹ NITL Submission, p. 60 (emphasis in original).

transfer of wealth from railroads to the small select set of benefitted shippers. In fact, it seems likely that the only way for covered shippers to receive an average 44 percent reduction in their rates is to set the mandatory switching fee artificially below the fee that would have been voluntarily negotiated between profit maximizing railroads that have optimized their operations and performance. In essence, this would amount to mandated rate reductions on eligible traffic.

The gaps in Mr. Roman's explanation of how and why rates would fall under the NITL proposal are compounded by errors and inconsistencies in his attempt to quantify the extent of anticipated rate decreases from the proposal. Mr. Roman presents two estimates, one for what he labels "full" competition scenario and the other for what he labels "reduced" competition. Mr. Roman begins by determining, for each Class I railroad, the average R/VC ratio at the 5-digit commodity code by mileage range for all single line movements with R/VC ratios below 180%. Mr. Roman asserts that this below-180% R/VC traffic is each railroad's "competitive" traffic. Multiplying this average R/VC by a movement's variable cost produces his "Competitive Benchmark Rate."²² To assess whether a particular covered shipper movement will benefit from a rate reduction caused by the NITL proposal, a covered movement's Waybill rate is compared to the sum of its competitive benchmark rate and the assumed access fee (discussed in the next section).²³ If the Waybill rate is greater than this sum, it is assumed that the rate will be reduced to the value of this sum.²⁴

²² Roman Statement, pp. 27-28.

²³ Thus, even this methodology highlights the importance of the access fee.

²⁴ Roman Statement, pp. 30-31.

Mr. Roman follows a similar approach for calculating results under “reduced” competition. Mr. Roman employs a model of assumed duopoly behavior to develop benchmark R/VC ratios for this hypothesized “reduced competition” outcome. A critical part of this second approach is calculating what Mr. Roman terms a “captive” R/VC, which is the analogue of the “competitive” R/VC calculated on all traffic with an R/VC ratio *above* 180%. The “competitive” and “captive” R/VCs are then used in a formula to derive a “duopoly” R/VC. Multiplying the “duopoly” R/VC by the variable cost of potentially impacted movements results in his “duopoly competition” benchmark rate. Similar to the full competition scenario, a covered shipper’s Waybill rate is compared to the sum of the duopoly competition rate and the access fee to determine whether the covered shipment will enjoy a lower rate from the NITL proposal under “duopoly competition.”²⁵

The reasoning behind Mr. Roman’s calculations is faulty. Mr. Roman’s key assumption is that 180% R/VC is a hard delineation between traffic that is subject to “full competition” and traffic that is “captive.” Neither economic theory nor the statute justifies this treatment. By itself, there is no economic content in the 180% R/VC as a measure of the extent of competition. There is no economic basis for assuming that traffic below 180% R/VC is subject to competitive forces and traffic above 180% R/VC is not. The statute treats 180% R/VC as the point at which inquiries into market power can begin, not as a demarcation between traffic that is free from the exercise of market power and traffic that is subject to the exercise of market power. While traffic that has

²⁵ Roman Statement, pp. 36-38.

an R/VC ratio of less than 180 is conclusively presumed to be free of the exercise of market power, even for R/VC ratios above that level the statute requires an economic analysis to determine whether a railroad can exercise market power.

It cannot be presumed that “full” competition only exists when R/VC ratios are below 180. From an economic perspective, this is an arbitrary standard for determining full competition. To the extent “full” competition actually exists at R/VC ratios above 180, the same competitive process determines price both above and below R/VC 180, and Mr. Roman’s distinction between “full” competition and “duopoly” competition is incorrect and misleading.

Mr. Roman’s calculations are based on an arbitrary and unsubstantiated assumption and cannot be viewed as producing meaningful estimates. Reliable estimates of how rate levels would change under mandated switching could only be developed based on detailed market information, much of which is unknown or could not be fully developed.²⁶ There is no reason to believe that Mr. Roman has correctly predicted the extent to which rates would fall. Nonetheless, Mr. Roman’s methodology – while flawed – suggests that rate reductions could be very significant.

Finally, as we discussed in our Initial Statement, to the extent there are price and quantity impacts created by the NITL proposal, not only will there be revenue reductions for the railroads, but there will also be contribution reductions (both revenue reductions and cost increases) that represent the true economic impact of the proposal

²⁶ We described similar difficulties in assessing the extent to which additional traffic would offset revenue losses due to mandated switching in our Initial Statement, at 13-14.

on railroads.²⁷ This issue of contribution reductions and the impact on railroads is not addressed by NITL or Mr. Roman. As we demonstrated in the Appendix of our Initial Statement, if railroads are maximizing profit, then any price change resulting from a change in regulation decreases contribution generated from the regulated market. If the railroad is already subject to regulation that results in a price less than the unconstrained profit-maximizing price, then regulation that further lowers price results in further loss of contribution.²⁸ NITL acknowledges a railroad's goal to optimize pricing behavior —e.g., “Presumably, as rational economic actors, rail carriers have already priced even captive traffic at a level that produces the greatest revenue given the shipper's options. Further rate increases would not produce further revenue gains, otherwise the railroads would have taken them already.”²⁹ Furthermore, the adverse effects on contribution of deviations from optimal pricing behavior also apply when prices are forced further below optimal levels by regulatory constraints.

COST-BASED APPROACHES TO RATE SETTING ARE ECONOMICALLY ARBITRARY AND LIKELY PRODUCE ECONOMICALLY INEFFICIENT OUTCOMES

NITL does not sponsor a specific access pricing methodology, but uses the average Canadian interswitching fee to develop what is essentially a cost-based estimate of access fee levels that would supposedly pertain under mandatory switching. USDA, however, explicitly advocates “using the average of Canadian inter-switching

²⁷ Initial Statement, p. 15.

²⁸ Initial Statement, Appendix.

²⁹ NITL Submission, p. 57. As we have pointed out, firms engage in optimal pricing behavior with respect to profit/contribution maximization, not revenue maximization. Thus, while NITL acknowledges that railroads engage in economically rational pricing behavior, they have incorrectly identified the object of railroads' optimizing behavior.

rates for the access price.”³⁰ NITL describes the Canadian interswitching rates upon which its proposal is modeled as follows:

In establishing interswitching rates, the Agency uses system-wide average company costs, which incorporate a contribution to constant costs.³¹

We have discussed the undesirable economic properties of cost-based rates in previous submissions to the Board and elsewhere.³² For example, in our EP 705 Reply Statement, we cited and reiterated our assessment of cost-based pricing found in our STB study, including an inconsistency with differential pricing:³³

We discussed the drawbacks of cost-based pricing in our November 2008 report in the context of proposed cost standards contained in Senate Bill 953. The same analysis and criticisms apply to using cost-based methods for setting access rates. We noted that cost-based pricing methods (also known as fully distributed costing (FDC)) have been criticized in the economics literature for at least 25 years, and that one of the earliest economic criticisms of FDC methods came in a 1962 statement presenting the consensus of ten economists regarding railroad costs and pricing. Importantly, we noted that one of the fundamental drawbacks of cost-based methods ... for setting railroad rates is that such methods are inconsistent with differential (i.e., Ramsey) pricing.

³⁰ Comments of the U.S. Department of Agriculture, STB Ex Parte No. 711, March 1, 2013 (“USDA Comments”), p. 20.

³¹ NITL Submission, p. 25.

³² For example, see Joint Verified Reply Statement of B. Kelly Eakin and Mark E. Meitzen, STB Ex Parte No. 705, May 27, 2011; Christensen 2008 STB Study; Mark E. Meitzen, “The Shared Cost Problem and Cash Cow Economics: Who Gets Milked?” *Public Utilities Fortnightly*, April 1, 1991; and A.C. Larson and M.E. Meitzen, “Recent State Legislation for Telecommunications: Brave New World or Bad Public Utility Law?” *George Mason University Law Review*, Vol. 14, No. 1, Fall 1991.

³³ Joint Verified Reply Statement of B. Kelly Eakin and Mark E. Meitzen, STB Ex Parte No. 705, May 27, 2011, pp. 15-16, citing Christensen 2008, pp. 22-20 to 22-21; Alfred E. Kahn, “The Uneasy Marriage of Regulation and Competition,” *Telematics*, Vol. 1, 1984, pp. 1-17; Alfred E. Kahn and William B. Shew, “Current Issues in Telecommunications Regulation: Pricing,” *Yale Journal on Regulation*, 4, pp. 191-256; and William J. Baumol, Burton N. Behling, James C. Bonbright, Yale Brozen, Joel Dean, Ford K. Edwards, Calvin B. Hoover, Dudley F. Pegrum, Merrill J. Roberts, and Earnest W. Williams, Jr., “The Role of Cost in the Minimum Pricing of Railroad Services,” *The Journal of Business*, 36(3), 1962, pp. 348-351; and Ronald R. Braeutigam, “An Analysis of Fully Distributed Cost Pricing in Regulated Industries,” *Bell Journal of Economics*, Vol. 11, 1980, pp. 182-196.

Cost-based pricing methods (i.e., fully distributed costing (FDC) methods) are generally regarded as economically arbitrary because the overhead or non-variable cost loading that is added to marginal cost has no unique economic determinant and, typically, does not consider demand-side responsiveness to prices. Cost-based approaches are often determined on non-market criteria, such as political bargaining power and fairness considerations, often producing outcomes that are economically inefficient. In contrast, Ramsey pricing is based on a markup over marginal cost that is inversely related to demand elasticity and is considered “second best” to marginal cost pricing in terms of economic efficiency. NITL witness Mr. Maville illustrates that the arbitrary nature of cost-based rates often creates a bargaining situation between interested parties whose outcome may be based on criteria that do not account for market dynamics:

The users of interswitching services have generally supported the continued use of a contribution level of 7.5 percent over railway costs ... Conversely, the providers of interswitching services – the railways – have generally maintained that they should receive a compensation that provide for full recovery of their constant costs.³⁴

Moreover, in the current application, there is no guarantee that cost-based rates will equal or approximate rates that would be negotiated by the railroads involved.³⁵ This has obvious implications for the economically efficient amount of switching that would occur. For example, if the Board could impose an access fee, and if the cost-

³⁴ Maville Statement, p. 17.

³⁵ NITL discusses existing switching charges (NITL Submission, pp 20-22) and may intend to suggest that existing charges could be a model for setting access fees. Such fees represent market based rates that railroads freely establish for services they choose to provide. However, railroads would face different circumstance where the switching was mandated rather than voluntary.

based rates imposed under mandatory switching were artificially lower than the rate parties would have voluntarily agreed to, an amount of switching greater than the optimal level would occur and network efficiency would diminish.

VALID EMPIRICAL EVIDENCE HAS NOT BEEN PRODUCED ON THE LIKELIHOOD THAT THE NITL PROPOSAL WILL CAUSE TRAFFIC INCREASES

NITL asserts that:

Although it is impossible to make exact predictions about the amount of traffic that U.S. rail carriers might expect to gain ..., there is no doubt that more competition would result in greater pressure to operate more efficiently and a likely increase in traffic that would offset at least part of the loss of railroad monopoly power ...³⁶

As we discussed in our Initial Statement, any traffic gains that might result from the NITL proposal would be confined to the small pool of shippers who benefit from the proposal, with the traffic of non-beneficiary shippers either staying the same or declining.³⁷ This is true because the proposal could only generate additional traffic from the limited group of shippers who can obtain rate reductions because they are eligible for switching. It would have no positive effect on volumes from other shippers, but could have a negative impact on their volumes because of service degradation or because favored shippers are able to increase their market share by diverting business from their disfavored competitors. We noted that a number of factors would be affected by the NITL proposal that would mitigate increases in covered shipper demand for rail service and railroads' ability to provide increased quantities of service, and that:

³⁶ NITL Submission, p. 56.

³⁷ Initial Statement, p. 10.

The likelihood that the traffic of covered shippers would increase depends on the magnitude of the effects produced by these factors and, thus, would need to be evaluated to determine the impact of the NITL proposal on covered shipper traffic. The mitigating factors include the impact of the NITL proposal on: service quality; railroad revenues, costs and profits; the amount of investment required to maintain or increase traffic levels; and the ability and incentives of railroads to undertake investments.³⁸

We also discussed that to determine whether there would be an overall increase in traffic (and revenue) as a result of the NITL proposal, an extensive amount of information would be needed, including:³⁹

- Amount of traffic for both covered and excluded shippers;
- Elasticities of demand for both covered and excluded shippers (these may vary by commodity and/or geography);
- The impacts of other non-price factors affecting shippers' demand for rail transportation;
- The factors affecting railroads' ability to provide service and maintain service quality;
- Rate reductions caused by the NITL proposal for covered shippers;
- Rate impacts on excluded shippers.

We opined that some of this information is unknown or cannot be fully developed and, thus, a meaningful quantitative response to the Board's question cannot be provided.⁴⁰ Our opinion has been confirmed: despite the Board's call for empirical evidence, neither NITL nor NITL witness Mr. Roman provides a meaningful quantification of traffic increases under the NITL proposal. While NITL asserts that there will likely be traffic increases, no substantive analysis of the type outlined above is

³⁸ Initial Statement, pp. 10-11.

³⁹ Initial Statement, p. 14.

⁴⁰ Initial Statement, p. 14.

provided to support this assertion. Similarly, as we document below, Mr. Roman provides no credible evidence of traffic gains that would likely be produced by the NITL proposal.

Mr. Roman's example of the NITL proposal creating an incentive for a shift of traffic from truck to rail is not relevant here and, in fact, is logically inconsistent with the NITL proposal because traffic with competitive options would supposedly not be eligible for mandatory switching. Mr. Roman states that his rail shipper surveys show that high rate increases of railroads are causing traffic to leave rail and go to long haul trucking and that "Lower rail rates on impacted movements under the CSP can help reverse this trend and help traffic switch back from truck to rail."⁴¹ However, by construction, this is not possible for traffic that is eligible under the NITL proposal as it is presumed that eligible traffic has "no effective inter- or intra-modal competition."⁴²

Mr. Roman's other examples of various commodity shipments by Canadian and U.S. railroads into Chicago provide no evidence of the impact of the NITL proposal on rail traffic volumes.⁴³ Mr. Roman observes that traffic in these commodities from Canada to Chicago increased between 2005 and 2011. Without any supporting analysis, he asserts that "[p]art of the reason for this is that Canadian production has had lower rail rate increases than U.S. production."⁴⁴ In these examples, Mr. Roman has not established any causation for the Canadian traffic increases and the role, if any, rail

⁴¹ Roman Statement, p. 43.

⁴² Roman Statement, p. 3.

⁴³ Roman Statement, pp. 44-47.

⁴⁴ Roman Statement, p. 44.

rates had in this increase. He does not explain or examine the role of rail rates in shippers' transportation decisions, nor does he look into other factors that would have caused the increase in Canadian shipments. The only thing his examples demonstrate is that there was a growth in Canadian shipments. However, while Mr. Roman states his examples in terms of percent changes, an examination of the levels of rates shows some anomalies that indicate it is factors other than rate changes that are causing changes in carloads. For example, in Table 18, Alberta has the highest levels of rates yet the greatest percent increase in carloads.⁴⁵ In summary, Mr. Roman's examples have no theoretical basis, are filled with inconsistencies and contradictions, and provide no quantitative evidence of the impact of the NITL proposal on traffic volumes.

Mr. Roman's firm, Escalation Consultants, also performed an analysis of the impact of the NITL proposal on agricultural shippers for the U.S. Department of Agriculture ("USDA Analysis").⁴⁶ USDA asserts that new traffic would result from the proposal based on a claimed shift in shipper elasticity of demand due to the introduction of a second carrier, but fails to support its claims. USDA posits that "The elasticity of demand for freight rail transportation for corn and wheat is between -1.2 and -0.5."⁴⁷ As support for this range of elasticities, an article by Oum, et. al., is cited. However, that article does not appear to report separately demand elasticities for corn and wheat rail transportation. Table 6 of the article (p. 151) contains demand elasticities for rail freight for select commodities. Corn and wheat is not a separate

⁴⁵ Roman Statement, p. 46.

⁴⁶ USDA Comments, pp. 15-17.

⁴⁷ USDA Comments, p. 15.

category in the table; the closest category reported in Table 6 is “Food products.” The range of elasticities reported for “Food products” is between -0.2 to -2.58. On page 153 of the article, a range of -0.5 to -1.2 is reported. However, this represents the demand elasticity of steel (-0.5) and fresh fruits (-1.2). Thus, it is not at all clear where the range of corn and wheat demand elasticities found in the USDA Comments come from. Based on its unsubstantiated range of elasticities, the USDA Analysis speculates that shipper elasticity of demand would “increase from -1.2 to -0.6 with the introduction of a second rail carrier.”⁴⁸

Even if USDA’s elasticity analysis could be untangled or substantiated, it is not clear what the source of the additional carloads created by the NITL proposal would be. Tables 6 through 11 of the USDA Analysis predict that agricultural carloads will increase anywhere from 11 percent to 26 percent as a result of the NITL proposal. The question is where will these carloads come from? Presumably, all covered agricultural shippers who are eligible for mandatory switching and their corresponding carloads are contained in the base case scenarios. Thus, there will be no additional agricultural shippers who are able to respond to any rail price decreases created by the NITL proposal—additional carloads will not (and, by design, cannot) be forthcoming from additional shippers. Moreover, according to the NITL proposal, there is no effective inter- or intra-modal competition for these shipments and, therefore, these carloads cannot be presumed to come from existing truck or barge traffic. Do covered

⁴⁸ USDA Comments, p. 15. The movement from -1.2 to -0.6 is actually a decrease in the elasticity of demand, not an increase, as it changes from *elastic* demand (an absolute value greater than 1.0) to *inelastic* demand (an absolute value less than 1.0).

agricultural shippers have sufficient inventories of commodities in storage to create these increases? Will covered agricultural shippers plant more crops in subsequent years that generate these increases? Without more information on questions such as these, the increased traffic scenario of the USDA Analysis is not credible.

CONCLUSION

The observation in our Initial Statement that the NITL proposal would create winners and losers among rail shippers has been confirmed by other parties in this proceeding, including NITL. It is clear from the statements of NITL and other parties that submitted initial comments that a select group of shippers would be eligible for mandatory switching. Furthermore, this select group of shippers would be disproportionately comprised of chemical shippers, while most shippers of agricultural commodities would not be eligible for mandatory switching. This is a classic example of an interested party using the regulatory process for the purpose of redistribution for private, not public benefits: the NITL proposal is redistributive in nature rather than efficiency improving and may actually reduce social welfare.

NITL's analysis of the price and revenue impacts is flawed and cannot be relied on for a quantification of the likely impacts of their proposal. Among the more prominent weaknesses in their analysis are: the questionable assumption that the threat of switching is sufficient to create rate reductions for eligible shippers; the failure to integrate into their model mandated access rates and their effect on market behavior; and the economically incorrect use of the R/VC ratio of 180 as an absolute point of demarcation between competitive and non-competitive behavior by railroads.

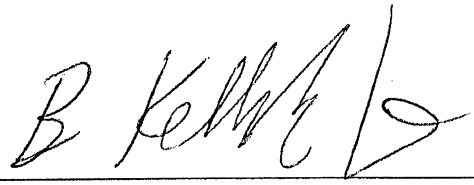
Furthermore, cost-based (i.e., FDC) access rates, such as the Canadian interswitching rate, are typically set in an economically arbitrary manner that do not consider demand-side responsiveness, have no necessary relationship to rates that would be negotiated in market settings and, thus, would likely produce economically inefficient outcomes. For example, if the cost-based rates imposed under mandatory switching are artificially lower than the rate railroads would have voluntarily agreed to, an amount of switching greater than the optimal level would occur and network efficiency would be affected.

Finally, no valid empirical evidence has been produced on the likelihood that the NITL proposal would result in traffic increases for railroads. As we discussed in our Initial Statement, an extensive amount of information would be needed to determine whether the NITL proposal would result in an overall increase in railroad traffic. However, we have demonstrated that no other party, including NITL and NITL witness Mr. Roman, has provided a meaningful basis for concluding that traffic increases would occur or a meaningful quantification of any traffic increases produced by the NITL proposal.

VERIFICATION

I, B. Kelly Eakin, verify under penalty of perjury under the laws of the United States that the foregoing is true and correct and that I am qualified and authorized to file this statement.

Executed on May 28, 2013.

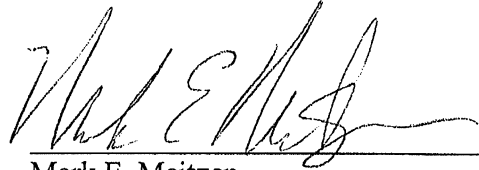


B. Kelly Eakin

VERIFICATION

I, Mark E. Meitzen, verify under penalty of perjury under the laws of the United States that the foregoing is true and correct and that I am qualified and authorized to file this statement.

Executed on May 28, 2013.



Mark E. Meitzen

**BEFORE THE
SURFACE TRANSPORTATION BOARD**

Ex Parte No. 711

**PETITION FOR RULEMAKING TO
ADOPT REVISED COMPETITIVE SWITCHING RULES**

**Reply Verified Statement
of
William J. Rennie
Partner
Oliver Wyman, Inc.**

May 30, 2013

Contents

I.	Introduction.....	2
II.	The NITL’s Claim That the Quality of Rail Service Would Be Unaffected by Its Proposal Is Without Any Support.....	4
III.	The NITL Proposal Could Produce Serious Adverse Service Effects.....	9
	A. The United States Currently Has the Best Rail System in the World.....	9
	B. The Efficiency of the U.S. Rail Network Should Not Be Jeopardized to Provide Rate Reductions for a Sub-Group of Rail Shippers that Have Already Reaped Substantial Benefits under the Staggers Act	12
	C. All Users of the Rail Network Would Be Adversely Affected by Service Declines ...	16
IV.	The NITL Ignores the Impact of Its Proposal on Capital Infrastructure Spending	17
	A. The NITL’s Comparison of Revenue Loss to Gross Revenue Obscures the True Impact of Its Proposal on Capital Spending.....	18
	B. The NITL Understated Revenue Losses By Ignoring Its Own Proposal in Estimating the Number of Carloads Affected by Its Proposal	22
	C. When the Additional Costs Created by Mandated Switching Are Considered, It Is Clear That the Revenue Losses to the Railroads Would Have a Devastating Impact on Capital Investment.....	24
V.	The NITL’s Claim that Mandated Switching Will Cause an Increase in Rail Traffic Is Implausible.....	34
VI.	Conclusion	38

Statement of William J. Rennie, Partner, Oliver Wyman

I. Introduction

I am William J. Rennie, a Partner with Oliver Wyman, Inc. On March 1, 2013, I provided a Verified Statement to the Surface Transportation Board in the matter of Docket No. Ex Parte 711, Petition for Rulemaking to Adopt Revised Competitive Switching Rules. My qualifications were provided as part of my original statement.

After reviewing the statements submitted by other interested parties in this matter, I have provided herein reply comments concerning the following issues:

- My opening evidence focused on the adverse impact on rail service that would result from introducing mandated switching as proposed by the National Industrial Transportation League (NITL). In its opening comments, the NITL acknowledges that mandated switching would be inefficient in most cases. The NITL claims, however, that the Board should not worry about such service impacts because relatively little additional switching will actually occur. I explain that the NITL's claim that the introduction of a new mandated switching regime will not actually lead to a significant amount of additional switching is based on nothing more than speculation and wishful thinking.
- While the amount of switching that would result from the NITL's proposal is impossible to predict precisely, it is clear that the amount of additional switching could be very large. As I demonstrated in my Verified Statement, even a relatively small amount of additional switching at locations that are near capacity would create a serious risk that rail service for all shippers would be adversely affected, including rail service for those shippers for whom mandated switching would not be available. History shows that congestion at such local points can spread to cause wider problems on a railroad network, leading to severe service

disruptions. I explain that it would not be in the public interest for the Board to take the risk of a severe adverse impact on rail service just to provide rate reductions for a sub-group of shippers that already have seen substantial rate reductions under the current market-based regulatory system.

- I also explain that, in addition to increasing the risk of a serious breakdown in rail service, the NITL proposal would have a severe impact on the railroads' ability to continue making infrastructure investments to improve service and meet increasing demands for service. I show that when the NITL's own assumptions concerning the financial impact of its plan on the railroads are put into the proper perspective, by comparing lost revenue as a result of mandated switching to the amount of annual capital expenditures by the railroad industry, it is clear that the money available for infrastructure spending would be substantially curtailed. The NITL's comparison of lost revenues to gross revenues is meaningless in assessing the impact of its proposal on infrastructure investment. Moreover, when more realistic estimates are made of the scope of the NITL proposal, and when the potential costs, both direct and indirect, of the NITL proposal are considered, the financial impact on the railroads could be devastating.
- Finally, I address the NITL's unsupported claim that reduced rates resulting from the NITL proposal would produce additional rail traffic that would offset the railroads' revenue losses. There is no reason to believe that mandated switching would lead to any diversion of traffic to railroads from other transportation modes, and there is no evidence that would suggest that mandated switching would lead to an increase in transportation demand that would come close to replacing the revenues lost as a result of mandated switching.

II. The NITL's Claim That the Quality of Rail Service Would Be Unaffected by Its Proposal Is Without Any Support

In my opening Verified Statement, I focused on the adverse service impacts of mandated switching. I explained that the NITL proposal would create conditions that in the past have caused significant service disruptions. If additional switching is imposed on a railroad, the quality of rail service will decline, and the decline in service could be potentially far reaching and severe. Among other things, I explained that rail service would be severely affected as a result of the following:

- Loss of service reliability due to substituting complex, multi-carrier routes that include many more events during which delays and service failures can occur, in lieu of existing, efficient single-line service;
- Delays due to congestion at major urban railroad centers caused by:
 - A sharp increase in the number of loaded and empty cars moving to and from interchanges over already crowded urban rail infrastructure;
 - Congestion in urban serving yards due to short-term fluctuations in traffic levels that exceed yard capacity and unpredictable “pop-up traffic” delivered by switching carriers;
- Delays due to congestion on main lines caused by:
 - Trains stopped or delayed on main lines due to congestion at interchanges;
 - Loss of the repetitive movements needed to run an efficient, scheduled railroad;
 - Routes running traffic in the opposite direction of existing traffic flows over already heavily utilized rail lines;

- Inefficient use of expensive classification yards due to the loss of volume necessary to construct bypass blocks, causing traffic that could bypass intermediate switching to have to be reclassified en route;
- Inability to optimize the use of main line tracks, railroad employees, and railroad equipment;
- Exposing employees to added risk due to increased switching events. The FRA recently issued an industry-wide safety advisory to railroads concerning flat switching.¹
 - Six railroad employees have been fatally injured since 2009 in flat switching accidents.
 - Mandated switching would add thousands of interchange switching events per day, and nearly all would require flat switching.

The NITL's opening comments and evidence say virtually nothing about the service impacts of its proposal. The NITL does agree, however, with an important premise of my discussion about service impacts, which is that introducing a new switching event is inefficient. In its opening comments, the NITL acknowledges that "By its definition, [mandated switching] requires a switch to another carrier, a switch that costs both time and money," and that "At the end of the day the transportation provided by the accessing carrier is unlikely in all cases to be as timely as the service provided by the carrier actually serving the shipper's facility, because of the need for the switch."²

The NITL does not talk about the consequences of imposing these inefficient switches on rail service quality. That question was the subject of my opening evidence, and I showed that the consequences would be severe. Instead of addressing the service impacts of introducing inefficient new switching into the existing rail network, the NITL's position is that the Board

¹ "Federal Railroad Administration Cautions Railroads About Flat Switching Operations Safety," U.S. Department of Transportation press release, May 3, 2013 (<http://www.fra.dot.gov/eLib/details/L04557>).

² Surface Transportation Board, Ex Parte No. 711, Opening Submission of the National Industrial Transportation League, March 1, 2013, p. 49 ("NITL Opening Submission").

does not need to worry about an impact on rail service because new switching will be relatively rare. The NITL's position appears to be that since mandated switching is inefficient, shippers are not likely to use it unless the alternative carrier is more efficient. Instead, according to the NITL, "The incumbent carrier has a huge incentive to keep the business, even at a lower profit level, rather than to lose the business entirely."³

There is no basis for the Board to conclude that if mandated switching becomes widely available, shippers will rarely use alternative carriers. The NITL relies heavily on its perception of Canada's experience with interswitching to support its claim that switching would be rare under the NITL's proposed rules. Association of American Railroads (AAR) witnesses (Messrs. Phil Ireland and Rodney Case) address the NITL's evidence on Canada and show that the NITL's description of interswitching in Canada is incomplete and misleading and, in any event, does not support the NITL's claims about the level of mandated switching that would occur in the United States.

Apart from its flawed evidence on Canada, the NITL's claim that switching would rarely occur is based on pure speculation. The NITL claims, without any evidence or rationale, that the incumbent would have a "huge" incentive to hold on to the existing business, which it would do by reducing its rates. But the NITL does not explain why the incumbent carrier's incentive to hold onto the business would always be greater than the incentive of the alternative carrier to attract new business to its system. The NITL also claims that the prospect of losing existing business to an alternative carrier would be so great that rates would be driven down by an average of 44 percent for directly impacted cars.⁴ But the NITL never explains why railroads would perceive a serious risk of losing business if switching rarely occurs. It is reasonable to

³ NITL Opening Submission, op. cit., p. 60.

⁴ NITL Opening Submission, op. cit., p. 53, Table 14 (\$1,293,650,873/\$2,929,210,097).

assume that a significant amount of switching would need to occur for the threat to be taken seriously.

The NITL asks the Board to believe that those shippers that are vigorously seeking the right to use an alternative carrier would not actually use an alternative carrier when the opportunity becomes available. As I noted in my opening evidence, it is not possible to know precisely how much switching would result from the NITL proposal. But there is no basis for assuming that switching would be rare. If the NITL proposal were adopted, there is a real chance that a substantial number of shippers would actually use the new rules to obtain service from an alternative carrier. And if that occurs, my evidence on the impact on rail service, which is the only evidence that anyone has presented in this proceeding on the subject, shows that the impact on rail service would be severe.

The inability to predict precisely how much switching would result from the NITL proposal has important consequences. As I explained in my opening Verified Statement, the uncertainty and inability to predict traffic patterns under mandated switching would undermine railroads' ability to plan their service – an important factor on its own that would degrade rail service. The NITL suggests that this uncertainty should not be a concern, because railroads always live with uncertainty, pointing out that rail traffic volumes change significantly from year to year.⁵

While it is true that rail traffic volumes change gradually over the medium to long term, railroads devote substantial resources and attention to monitoring market trends, so as to be prepared to respond to changes in demand, which frequently tie to external economic and shipper-specific factors that affect traffic levels in specific markets. Despite doing so, the lead time to recruit and train crews and to design and construct capacity makes responding to market

⁵ NITL Opening Submission, op. cit., p. 61.

changes challenging. Adding further uncertainty through regulation will only compound the difficulty and interfere with the railroads' ability to respond to dynamic markets. Under mandated switching, the railroads will have no ability to predict individual shipper decisions to move some or all of their traffic to alternative carriers. And if shippers can divert some, but not all of their traffic, then the ability of both the incumbent and alternative carrier to form efficient blocks of traffic will be lost.

III. The NITL Proposal Could Produce Serious Adverse Service Effects

Given all the potential risks of service deterioration and added inefficiency posed by mandated switching, why then take the risk? The NITL has not identified any need for mandated switching or any reason that the public would benefit from it. Rather, the NITL proposal would jeopardize the best rail system in the world, which serves all rail shippers, for the pecuniary benefit of a limited subset of rail shippers. Taking such a risk is not in the public interest.

A. The United States Currently Has the Best Rail System in the World

As I explained in my opening evidence, under the current regulatory structure, the freight railroad system in the United States has evolved from a system characterized by widespread bankruptcy and deferred maintenance to become the best in the world. The railroad network today provides a competitive advantage for railroad shippers in the United States. There is no reason for the Board to jeopardize that leading position.

As Exhibits III-1 and III-2 demonstrate, the U.S. railroad industry carries more freight than any railroad network in the world except China, and it does so more efficiently than any major railroad system in the world.

Exhibit III-1: Major World Rail Systems: Railway Goods Transported, 2008/2011⁶

Million ton-km

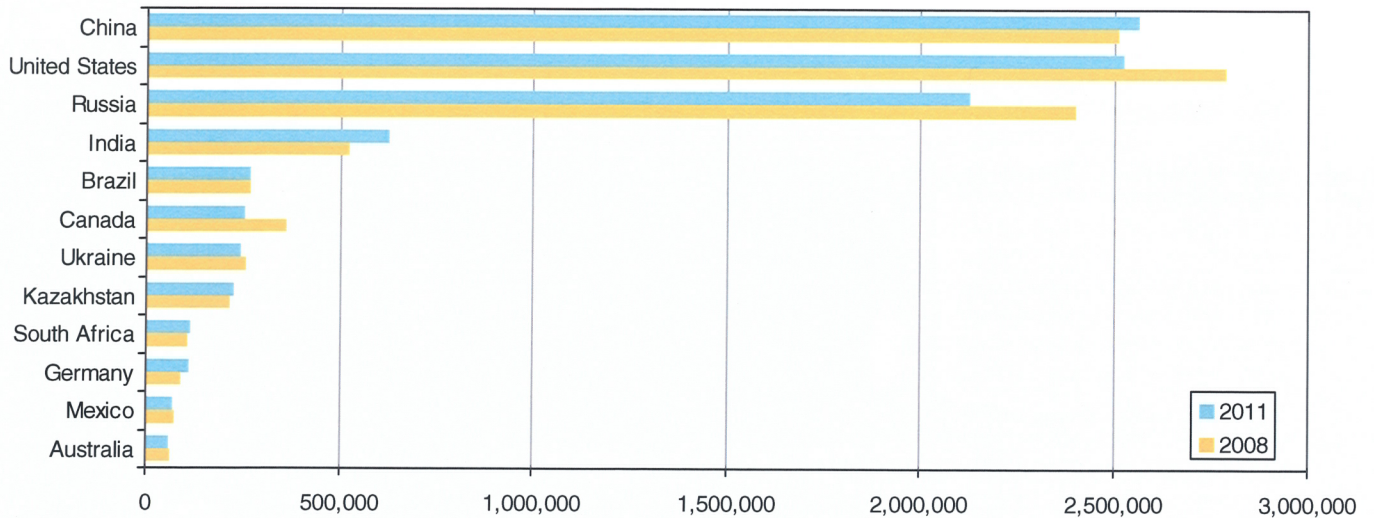


Exhibit III-2: Major World Rail Systems: Employee Productivity⁷

Tkm+pkm/employee

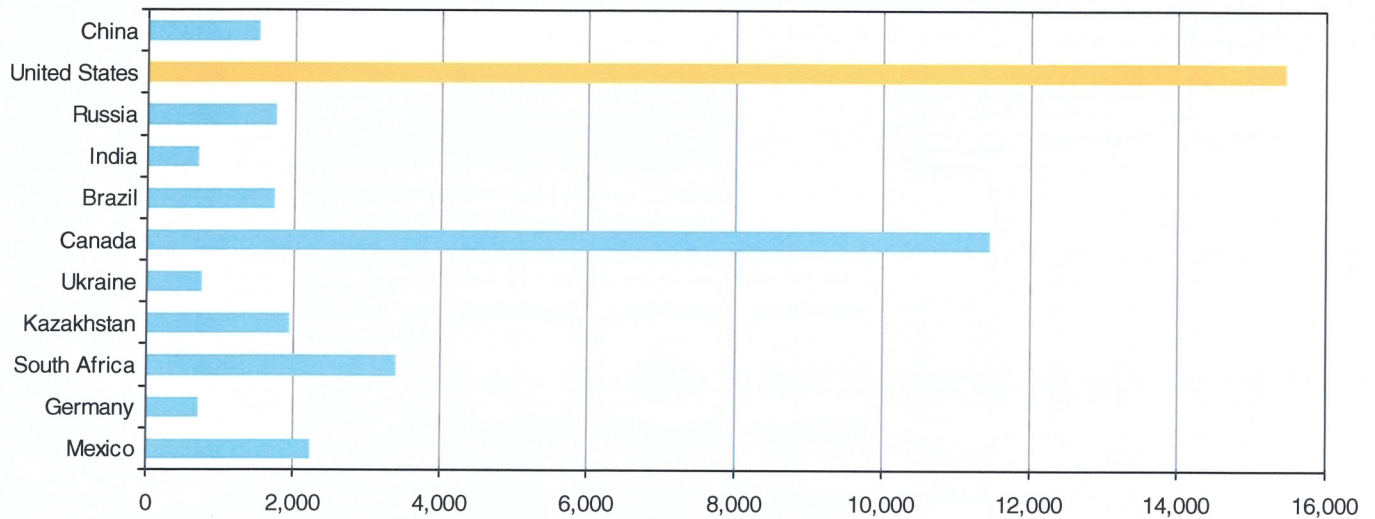


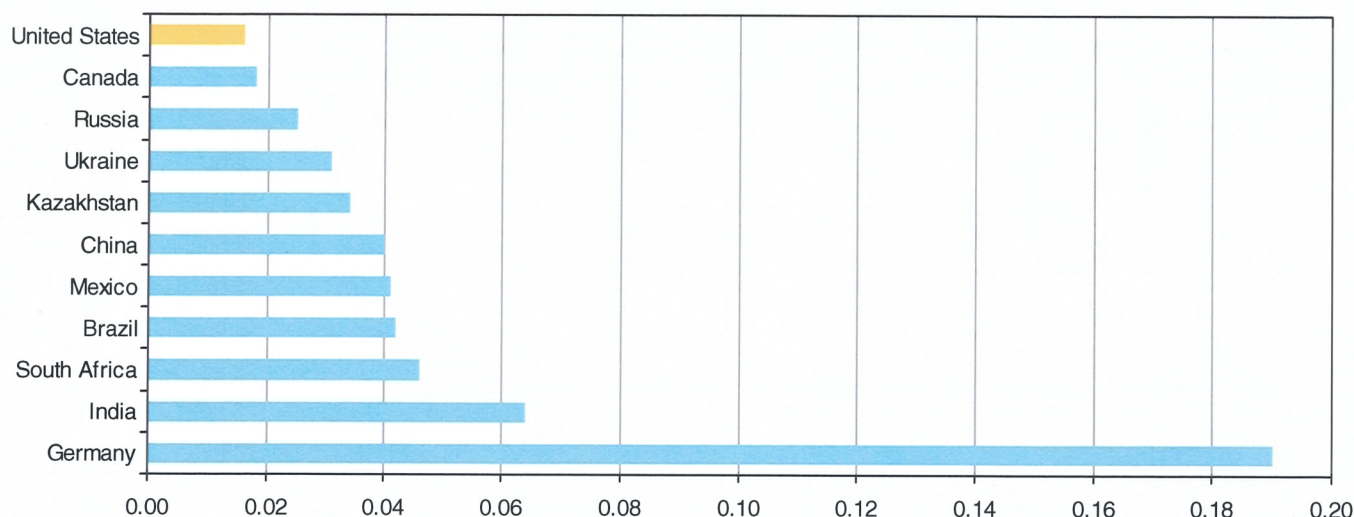
Exhibit III-3 shows that the U.S. rail network provides these benefits while offering rates that are among the lowest in the world.

⁶ Railway goods transported, million ton-km, World Development Indicators, World Bank, 2008 and 2011 data.

⁷ Source: World Bank Railways Database, June 2007. U.S. and Canada data freight only, Australia data not available. Most recent data available for this metric.

Exhibit III-3: Major World Rail System Freight Rates⁸

Purchasing power parity (PPP) for freight revenue per ton-km



U.S. rail efficiency and productivity improvements have contributed to low inland transport and logistics costs, to the benefit of U.S. rail shippers. Through their focus on streamlined operations, railroads play an important role in commercially “shrinking” the distance from growing and production points to end markets and export points. This commercial shrinkage of actual distance supports America’s competitive position when products are sold against offerings from countries where the product lies much nearer to the market. For example, most of Queensland’s coal is within several hundred miles of the export point.⁹ Large Argentine and Brazilian grain growing areas are also closer to points of export than in the United States.¹⁰

The ability of U.S. railroads to move goods in a streamlined, efficient manner is critical to the U.S. domestic economy. For example, legacy and transplant automobile assembly plants in the United States operated both by domestic and foreign car and component manufacturers are a core component of the U.S. industrial economy. These U.S. operations employ American citizens,

⁸ Source: World Bank Railways Database, June 2007. U.S. and Canada freight only, Brazil FEPASA only, Australia data not available. Year 2000 PPP dollars. Most recent data available for this metric.

⁹ Railing Queensland’s Coal, Queensland Government, May 2010, p. 11, fig. 1.

¹⁰ ERS/USDA Soybeans and Oil Crops Briefing Room: Trade (<http://www.ers.usda.gov/Briefing/Soybeansoilcrops/trade.htm>).

purchase material and services, and pay taxes in our national and local economies. The viability and competitiveness of these plants depend on the efficient delivery of foreign components.

Foreign parts content in cars manufactured in the United States and Canada ranges from 10 to 55 percent, with Mexico as the main supplier of auto parts to the U.S. market.¹¹ Without efficient rail transport for imported parts and essential material, many of these automobiles and light trucks would be entirely manufactured abroad.

The three decades of work the railroads have done to streamline their operations may also contribute to an industrial renaissance if, as predicted by some analysts, offshore production begins to return to the United States and its NAFTA partners. As noted recently by the *Wall Street Journal*: “A combination of forces—rapidly rising labor rates abroad, loftier materials and shipping costs, deep-discount tax incentives from U.S. states—are changing some of the calculations by which companies decide to move production abroad, or even keep what’s there now.”¹²

B. The Efficiency of the U.S. Rail Network Should Not Be Jeopardized to Provide Rate Reductions for a Sub-Group of Rail Shippers that Have Already Reaped Substantial Benefits under the Staggers Act

AAR witnesses Messrs. Baranowski and Brown demonstrated in their opening evidence that the primary beneficiaries of the NITL proposal would be shippers of coal and chemicals; these

¹¹ National Highway Traffic Safety Administration ([http://www.nhtsa.gov/Laws+&+Regulations/Part+583+American+Automobile+Labeling+Act+\(AALA\)+Reports](http://www.nhtsa.gov/Laws+&+Regulations/Part+583+American+Automobile+Labeling+Act+(AALA)+Reports)); “On the Road: U.S. Automotive Parts Industry Annual Assessment,” Office of Transportation and Machinery, U.S. Department of Commerce, 2011, p. 65.

¹² “Analysis: Will Costs Drive Firms Home?” *Wall Street Journal Online*, May 5, 2011.

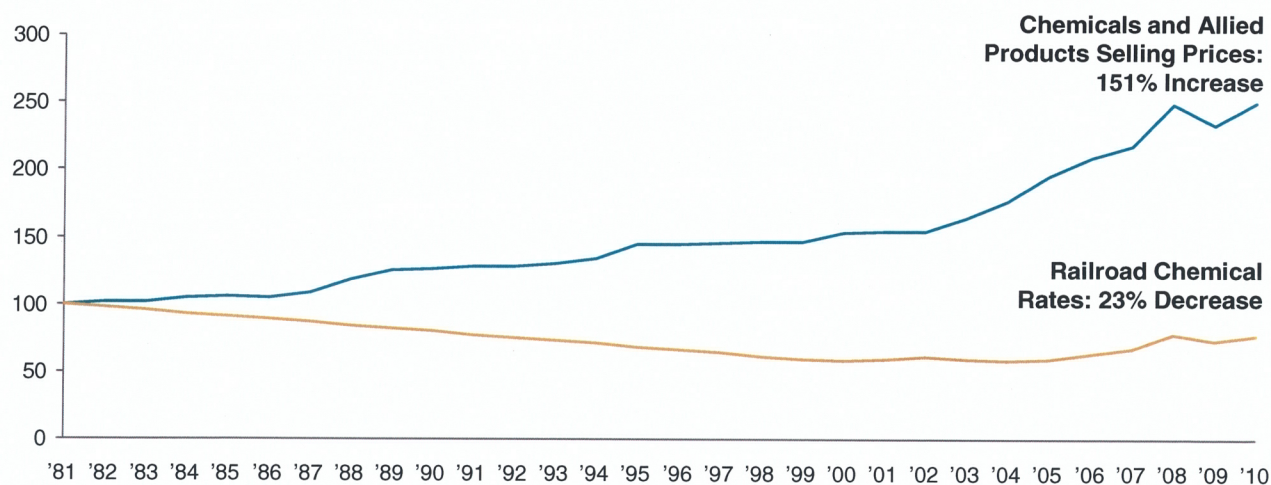
two commodities would account for 49 percent of carloads potentially subject to the NITL proposal.¹³

The NITL makes it clear that the objective of its proposal is to create pressure for rate reductions. But the shippers for whom these rate reductions would be available have already been the beneficiaries of substantial reductions in rail rates under the market-based regulation ushered in by the Staggers Act.

In fact, while rail rates have declined during this period, these shippers have been increasing the prices of their own products. As shown in Exhibit III-4, while the inflation-adjusted prices of chemicals and allied products has increased by 151 percent since 1981, inflation-adjusted railroad rates for chemical products have declined by 23 percent during the same period. Chemical shippers have been the beneficiaries of the widening gap between rail prices and their own selling prices.

Exhibit III-4: Change in Railroad Rates and Selling Prices for Chemicals Since 1981¹⁴

Indexed, 1981 = 100



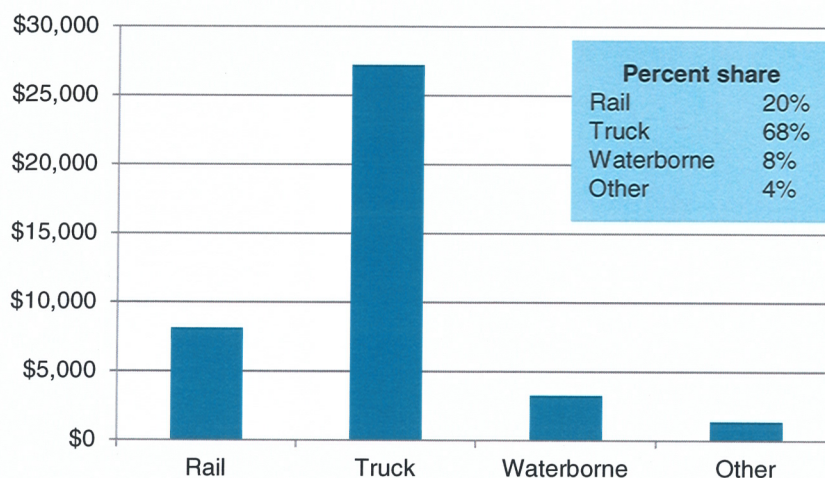
¹³ Surface Transportation Board Ex Parte No. 711. Verified Statement of Michael R. Baranowski and Richard W. Brown, March 1, 2013, Table 4, p. 10.

¹⁴ "The Cost Effectiveness of Freight," Association of American Railroads, June 2012; U.S. Producer Price Index, Chemicals and Allied Products, U.S. Census Bureau; Oliver Wyman analysis. Railroad rates are U.S. average rail revenue per ton-mile for chemicals, adjusted for inflation. Chemical rates are yearly values calculated by averaging monthly values for a given year.

Moreover, while chemical shippers would have the Board believe that railroad rates are an important part of their cost structure, the fact is that overall, the cost of transportation (including all modes) accounts for only about 5-7 percent of the chemical business's value of shipments.¹⁵ Of that total, as Exhibit III-5 demonstrates, in 2010 rail costs accounted for just 20 percent of total transportation costs for the chemical industry, meaning that railroads accounted for about 1 percent of the value of chemical shipments. Contrary to the impression that chemical shippers would like to create – that rail prices have a substantial impact on their business – Exhibit III-5 shows that 80 percent of total transportation expenditures by the chemical industry were for modes other than rail.

Exhibit III-5: Transportation Costs for the Chemical Industry by Mode¹⁶

\$ millions



Coal shippers also have benefited from the current market-based regulation regime, through reductions in transportation rates that have been much larger than the reduction in prices charged by coal shippers to their customers. As Exhibit III-6 demonstrates, while inflation-adjusted electricity rates have declined by 17 percent since 1981, railroad coal rates have declined more, by 43 percent. In coal as in chemicals, railroads clearly are not taking the majority of the

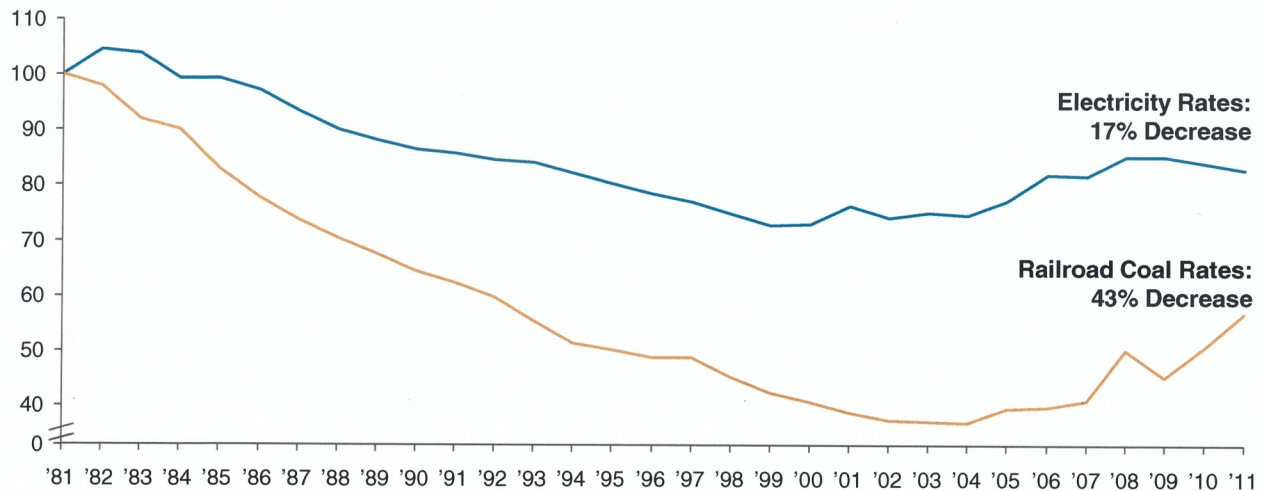
¹⁵ Guide to the Business of Chemistry, 2011 edition, American Chemistry Council, p. 105.

¹⁶ Source: Guide to the Business of Chemistry, op. cit., Table 11.2. Values shown are for 2010.

economic rent; rail rates for coal transportation have declined further than electric rates and the spread has favored coal shippers.

Exhibit III-6: Change in Railroad Coal Rates and Electricity Rates Since 1981¹⁷

Indexed, 1981 = 100



Agricultural shippers stand to gain less from the NITL’s proposal than coal and chemical shippers, but grain shippers and the U.S. Department of Agriculture (USDA) also have appeared in this proceeding in support of the NITL’s proposal. But as the USDA has recognized elsewhere, “Rates for land transportation of agricultural commodities in the United States remain among the lowest in the world.”¹⁸ A study by O’Neil Commodity Consulting for the Soy Transportation Coalition on grain transportation rates notes that “It is important to recognize that the U.S. transportation system is the most efficient in the world. The ability to move large volumes of commodities at relatively low cost is a great advantage to U.S. farmers.”¹⁹

¹⁷ “Railroads and Coal,” Association of American Railroads, June 2012; Annual Energy Review 2007, Energy Information Administration (EIA), Table 8.10 (for 1981-2006); Electric Power Monthly, EIA, Table 5.3 (for 2007-2011); Oliver Wyman analysis. Railroad rates are U.S. average rail revenue per ton-mile for coal, adjusted for inflation. Electricity rates are U.S. average revenue per kwh, all sectors, adjusted for inflation.

¹⁸ Study of Rural Transportation Issues, U.S. Department of Agriculture, April 2010, p. 210.

¹⁹ Transportation and the Farmer’s Bottom Line, O’Neil Commodity Consulting, June 2010, p. 4. Jay O’Neil is a senior agricultural economist at the International Grain Project at Kansas State University.

The fact is that railroad shippers – including shippers in industries that support the NITL proposal – have no basis to argue that the Board should consider mandated switching to protect them from increases in railroad rates. Since 1980, under the current regulatory structure, railroad rates have increased at less than the rate of railroad cost inflation and rail shippers have shared in the benefits of increased railroad efficiency. As demonstrated in my original Verified Statement, these efficiency gains have been made possible by rationalizing the railroad network and simplifying operations, including greatly reducing the percentage of traffic interchanged. Mandated switching would undermine these gains.

C. All Users of the Rail Network Would Be Adversely Affected by Service Declines

While the rate reductions that would be brought about by the NITL proposal are limited to a subset of shippers, the adverse service impacts would be felt by all users of the rail network. As I demonstrated in my opening Verified Statement, the service impact of inefficient switching would be felt largely in the urban areas and service yards where new switching activities would have to take place. The adverse service effects of inefficient switching would therefore be felt by all shippers with traffic passing through an affected urban area or that use an affected yard. I also showed that localized problems that arise from inefficient switching or from the lack of adequate switching infrastructure could quickly expand through the rail network, again affecting all users of the rail network. The NITL proposal would thus create winners and losers among rail shippers – a subset of shippers would benefit from rate reductions while the rest of the rail shipper community would be required to suffer the adverse effects of service declines. It would not be in the interest of rail shippers as a whole or the general public to adopt new rules that have such a disproportionate effect.

IV. The NITL Ignores the Impact of Its Proposal on Capital Infrastructure Spending

The public interest also is not served by adopting new rules that would dramatically curtail capital spending by the railroads on infrastructure. As the rail industry's regulator, the Board must be concerned with the potential effect that a change in regulatory structure could have on the financial viability of the railroads and, in particular, their ability to sustain the nation's rail infrastructure over the long term. The disastrous outcome of railroad industry overregulation prior to 1980, i.e., the bankruptcy of railroads in large parts of the country and massive deferred maintenance, provides an ample reason for caution when considering a fundamental change in regulatory structure such as the NITL is proposing.

The NITL suggests that the Board need not worry about the financial impact of its proposal, because the loss of revenue that it estimates would result from mandated switching – \$1.29 billion per year – would be a “very small fraction” of the gross revenues for the four Class I railroads included in its evidence.²⁰ It is impossible to predict accurately the revenue losses that would occur under the NITL's proposal, however, because there are too many unknowns. The NITL itself seems uncertain whether any new rule should include traffic that meets its proposed “75 percent” presumption, since the NITL did not even attempt to estimate the impact of the NITL proposal on such traffic. In addition, the level of access fees would affect the level of revenue losses that would occur, but the NITL did not submit any evidence on what such access fees should be.

Regardless of how the rule is structured, there is no way to predict how shippers or railroads would react to a mandated switching regime. However, a proper examination of the NITL's

²⁰ NITL Opening Submission, op. cit., p. 64. Class I railroads included are BNSF, CSX, NS, and UP.

clearly understated number reveals that a \$1.29 billion reduction in revenues would have a substantial negative effect. By conducting a more comprehensive analysis, with a more accurate carload number and an attempt to approximate at least some of the costs resulting from the NITL's proposal, the results become devastating.

A. The NITL's Comparison of Revenue Loss to Gross Revenue Obscures the True Impact of Its Proposal on Capital Spending

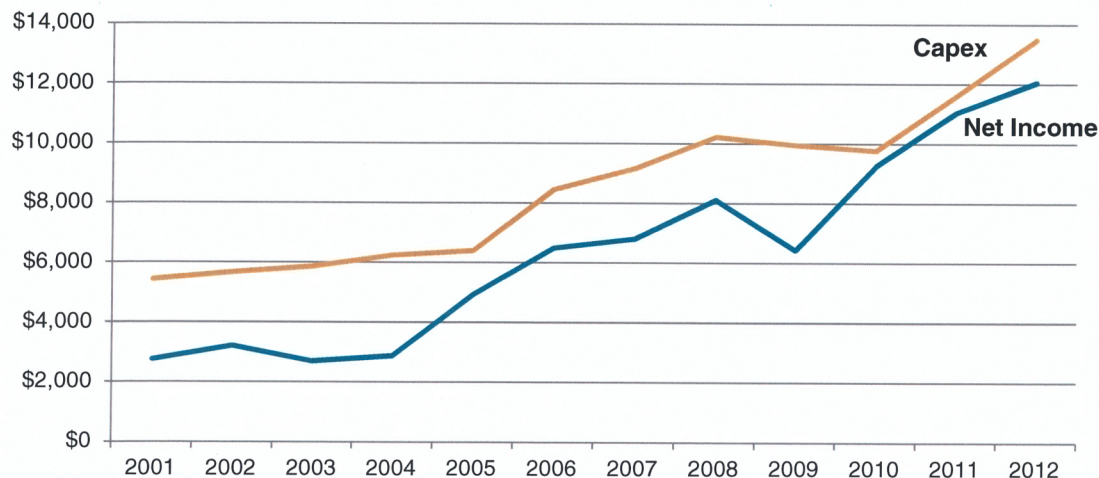
First, the NITL attempts to obscure the true nature of the financial impact of its proposal on the railroads by focusing on reductions in railroad industry gross revenue. But to fully understand the potentially devastating impact mandated switching could have on the railroads, the Board must focus on the impact of revenue reductions on the railroads' ability to sustain a viable railroad network over the long term through capital investment. A comparison of revenue losses to gross revenue says nothing about the impact of those losses on railroad industry capital expenditures.

The NITL and its members well know that profitability and financial viability are measured in net income, not revenue. Dollars needed to keep the railroad network in good repair, and to expand it to accommodate the traffic growth that is expected over the coming years and decades, come from net income and cash flow.²¹ The NITL asserts that its estimated \$1.29 billion revenue loss for the four railroads included in its study would be "a small fraction" of their gross revenues, but the NITL does not make the correct comparison: The important question from a public interest standpoint is how the loss of \$1.29 billion in annual revenues would affect capital expenditures. And, contrary to the NITL's suggestion that the impact of the revenue loss would

²¹ Cash flow is net income plus depreciation and amortization, deferred taxes, and net change in subsidiary undistributed income. Between 2000 and 2011, railroad net income and railroad cash flow were closely related to one another and to railroad capital expenditures. Therefore, for purposes of simplicity, I refer to net income in this statement.

be insignificant, such a loss in revenue – even the NITL’s understated amount – would be equivalent to 13 percent of the entire railroad industry’s 2010 capital expenditures. When put into the proper context, it is clear that even the NITL’s understated revenue loss projection of \$1.29 billion would severely affect the public interest in maintaining a viable rail network, by reducing the investments that railroads could make in improving and expanding rail infrastructure. As shown in Exhibit IV-1, historically railroad net income has been closely related to capital expenditures: Increases and decreases in net income are reflected in closely corresponding increases and decreases in capital expenditures.

Exhibit IV-1: Relationship of Net Income and Railroad Capital Expenditures, 2001-2012²²



Since the amount of work required by the railroads, and the costs associated with that work, would not decrease (in fact, as I explain later, work would increase significantly), a \$1.29 billion reduction in revenue would cause a substantial reduction in net income available to make capital expenditures for the four railroads included in the NITL’s estimate – and even more for all seven Class I’s – *every year*.²³ And since the \$1.29 billion loss estimate is dramatically understated, as

²² Source: Railroad Ten Year Trends, 2001-2010, Association of American Railroads, p. 65; Railroad Facts, 2012 edition, Association of American Railroads, p. 44; 2012 Class I R-1’s.

²³ We discuss the effect of income tax due to the loss of revenue on net income and funds available for capital expenditures in Section IV.

I explain below, the actual impact on capital expenditures would be far greater.

Exhibit IV-2 lists selected recent projects that were specifically funded to help mitigate rail congestion and increase capacity. The loss of revenue available to fund projects such as these would lead to delays and service deterioration for shippers – both those that would benefit from mandated switching and those that would not.

Exhibit IV-2: Examples of Recent Rail Infrastructure Improvement Projects

Railroad	Location	Comments	Investment
BNSF	Williston Basin in North Dakota and Montana	BNSF expanding its ability to transport Bakken crude oil following the rapid rise of shale development in the region. Expansions include 2,188 miles of track surfacing, two new inspection tracks, raising track at Devil's Lake, replacement of 121 miles of rail and 332,000 ties, signal upgrades, and equipment acquisitions. ²⁴	\$197M
BNSF	Kansas	BNSF enhancing its rail capacity in Kansas through construction of the Kansas City Intermodal Facility southwest of Kansas City in Edgerton, KS, improvements to the Topeka locomotive shops, and signal upgrades for positive train control. ²⁵	\$242M
CN	Gary, IN	CN expanding Kirk Yard facility with additional classification, receiving, and departure tracks to handle longer and more efficient trains, improving interchange with other railroads, and consolidating switching operations in the Chicago area at a single primary yard. ²⁶	\$141M
CSX	Ohio	CSX built a new rail terminal in Northwest Ohio with an annual capacity of nearly two million containers. It is the cornerstone of a new double-stack freight network between East Coast ports and the Midwest, and utilizes recent advancements in technology and green design. ²⁷	\$175M
CSX	Worcester, MA	CSX expanded its existing rail terminal in Worcester, which enhanced the flow of product shipments in a variety of domestic and international markets. ²⁸	\$100M
NS	Bellevue, OH	NS doubling yard capacity at its Bellevue classification yard to meet rising demand for freight rail transportation. ²⁹	\$160M
UP	Arkansas, Louisiana, Texas, and Oklahoma	UP adding terminal and line capacity to handle growth in chemicals, crude oil, frac sand, intermodal, automotive, and cross-border Mexico traffic. Projects include terminal upgrades, double-tracking, siding extensions, and CTC installation on the Pine Bluff-New Orleans corridor, Houston-San Antonio corridor, and El Paso-Dallas/Ft. Worth-Shreveport corridor. ³⁰	\$551M

²⁴ BNSF news release, September 4, 2012 (<http://www.bnsf.com/media/news-releases/2012/september/2012-09-04a.html>).

²⁵ BNSF news release, May 15, 2012 (<http://www.bnsf.com/media/news-releases/2012/may/2012-05-15a.html>).

²⁶ "Canadian National Cuts Back on Kirk Yard Expansion," NWI.com (http://www.nwintimes.com/business/local/canadian-national-cuts-back-on-kirk-yard-expansion/article_08373e30-7bd0-5714-a69c-09e486f01350.html).

²⁷ CSX news release, February 22, 2011 (<http://www.csx.com/index.cfm/media/press-releases/northwest-ohio-terminal-begins-service/>).

²⁸ CSX, Projects and Partnerships, Sustainable Infrastructure, Worcester (<http://www.csx.com/index.cfm/about-csx/projects-and-partnerships/sustainable-infrastructure/>).

²⁹ "Norfolk Southern Announces Major Expansion," *Sandusky Register* (<http://www.sanduskyregister.com/article/1799236>).

³⁰ 2012 Analyst Fact Book, Union Pacific Corporation, pp. 30-31 and 33. First quarter 2013 earnings release, Union Pacific Corporation, p. 15.

There are significant public policy implications implicit in forcing a reduction in railroad capital expenditures of the magnitude that would occur under even the NITL's understated assumptions. The continued ability of the railroad industry to make capital investments to maintain existing infrastructure, to fund capital improvements to infrastructure, and to expand existing railroad infrastructure to meet growing demand is a critical national interest. The inability of the railroads to make these critical capital investments prior to the passage of the Staggers Act led to the bankruptcy of large portions of the railroad industry and significant deferred infrastructure spending. A recent Council on Foreign Relations report on U.S. rail infrastructure noted that:

“Freight railroads [are] maintained with little taxpayer money, unlike alternative forms of freight transport such as trucks and barges, for which the government maintains the infrastructure. Over the past several decades, U.S. freight railroad companies have made billion-dollar investments in the national rail network....But challenges remain. Freight rail will need substantial investment in the future, despite its current success.”³¹

The report emphasized the need to add rail capacity. The U.S. Department of Transportation has projected that a 46 percent increase in capacity will be required to meet rail freight transportation demand by 2040.³² A reduction in revenues available to make capital investments, even of the understated amount estimated by the NITL, would have a serious impact on the ability of the railroads to make necessary investments. The public interest is not advanced by

³¹ Renewing America Backgrounder; U.S. Rail Infrastructure, Council on Foreign Relations, March 7, 2012 (<http://www.cfr.org/united-states/us-rail-infrastructure/p27585>).

³² Freight Facts and Figures 2012, Table 2-1, U.S. Department of Transportation.

cutting deeply into railroads' capital budgets so that a sub-group of shippers can benefit from rate reductions.

Thus, even using the NITL's underestimated revenue loss projection, the potential impact of the NITL proposal on capital investment is severe. But, as discussed in the next section, when more realistic estimates of the scope of the NITL proposal are considered, it is clear that the NITL proposal could have a devastating impact on the U.S. rail network and all users of the rail system.

B. The NITL Understated Revenue Losses By Ignoring Its Own Proposal in Estimating the Number of Carloads Affected by Its Proposal

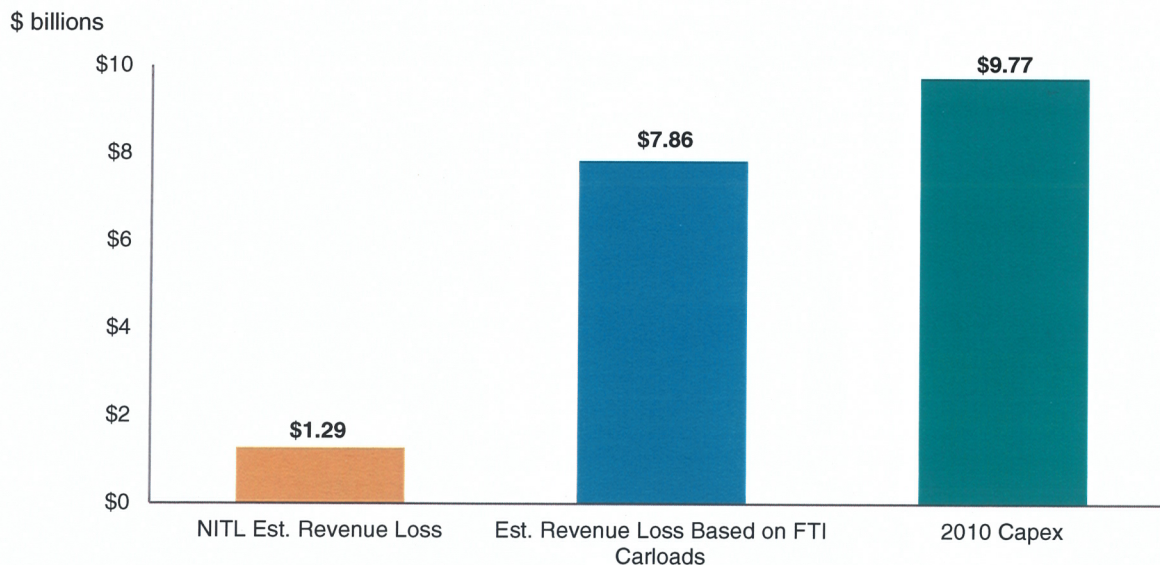
In estimating the effect of mandated switching on the railroads, the NITL ignored its own proposal. Specifically, the NITL failed to include in its estimation the effect of the "75 percent rule" as an alternative to a 240 percent R/VC ratio for determining that a movement lacks effective competition. The NITL also assumed that the jurisdictional limit of 30 miles from an active interchange would be measured in rail miles, rather than radial miles. Finally, it excluded three of the seven U.S. Class I railroads from its analysis altogether. These decisions, and others discussed by AAR witnesses Messrs. Baranowski and Brown of FTI Consulting (FTI), caused the NITL to understate significantly the number of potentially impacted cars.

The NITL then used its understated estimate of affected carloads to predict the revenue losses that railroads would incur. The NITL estimated railroad revenue losses by making assumptions about the rate reductions that would occur when an alternative carrier becomes available to sole-served shippers. The NITL's rate reduction analysis is pure speculation. However, if the NITL's rate reduction assumption is applied to more reasonable assumptions about the number of

carloads that would be affected by the NITL proposal, it is clear that even the NITL's \$1.29 billion revenue loss estimate is dramatically understated.

Unlike the NITL's estimate of the number of carloads that would be affected by its proposal, the estimate made by Messrs. Baranowski and Brown is based on modeling the NITL's actual proposal. Messrs. Baranowski and Brown estimated that about 7.5 million carloads would be affected by the NITL proposal. If the NITL's estimate of a revenue loss of \$1,044 per carload is applied to all of the traffic in FTI's estimate of affected carloads, the revenue losses would be \$7.83 billion. Exhibit IV-3 below illustrates the magnitude of the NITL's revenue loss understatement and compares the more realistic estimate of revenue losses to the railroad industry's 2010 capital expenditures.

Exhibit IV-3: Magnitude of the NITL's Revenue Loss Understatement³³



³³ Source: Revenue impacts based on Oliver Wyman analysis of NITL and FTI data contained in the EP 711 filing, March 1, 2013. 2010 capex from Railroad Facts, 2011 Edition, op. cit., p. 44.

C. When the Additional Costs Created by Mandated Switching Are Considered, It Is Clear That the Revenue Losses to the Railroads Would Have a Devastating Impact on Capital Investment

While the loss of \$7.86 billion in annual revenues, amounting to over 80 percent of annual capital expenditures, would clearly present severe problems for the railroad industry and its users, the financial impact of the NITL proposal is even greater when cost impact is considered. The funds available to make capital investments would be reduced by the NITL proposal not only due to a reduction in rate levels, but also due to the additional costs that would be imposed by mandated switching. The NITL has ignored the cost increases that would result from mandated switching.

Once again, it is not possible to estimate with any precision the additional costs that would result from mandated switching. As my opening evidence described, many factors unique to the circumstances of particular switching locations and operations would have to be considered to prepare an accurate estimate of the additional costs. However, it is possible to make a very high level estimate of certain direct costs that would be created by mandated switching by looking at historical experience.

Direct Cost Increases

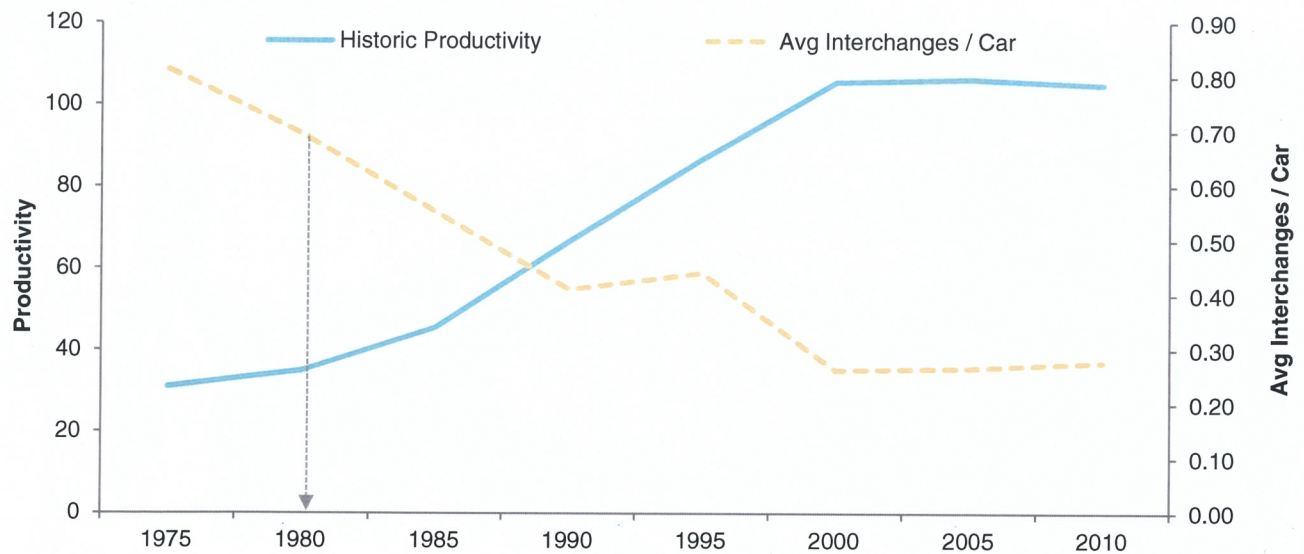
My Verified Statement in this proceeding established a strong negative correlation between railroad productivity and the number of cars interchanged.³⁴ As the railroads have invested to reduce the number of interchanges and to simplify their operations, the productivity of the entire rail system has increased. This is illustrated in Exhibit IV-4.

³⁴ Surface Transportation Board Ex Parte No. 711, Verified Statement of William J. Rennie, March 1, 2013, Section VII ("Rennie Verified Statement").

Exhibit IV-4: Average Interchanges per Railcar vs. Productivity, 1975-2010³⁵

Productivity = revenue ton-miles/\$ of inflation-adjusted operating expense

Correlation coefficient between productivity and average number of interchanges = -0.95



Productivity can be broken down into several components, including infrastructure, rolling stock, and labor, and each of these productivity components is strongly correlated with the number of interchanges.

For example, Exhibit IV-5 below shows a strong correlation between a decrease in the number of interchange events per railcar and a decrease in miles of yard track.³⁶ This is not surprising, since interchanges largely occur in yards and thus a decrease in the number of interchanges will lead to a decrease in the work being done in a rail yard, and thus a reduction in the amount of yard track necessary to support this work.

Equally, there is a strong negative correlation between the average miles per day traveled by a railcar and the number of interchange events per railcar. Again, this is not surprising, since the

³⁵ Rennie Verified Statement, op. cit., Exhibit VII-7, p. 103.

³⁶ Correlation coefficients range from +1 to -1, where values numerically close to +1 indicate the two variables have historically both increased or decreased at the same time. Values close to -1 indicate that historically as one variable increased the other decreased.

less often a railcar is interchanged, the more time it can spend in transit instead of sitting in a yard.

Finally, with regard to labor, it would be expected that a reduction in interchange events at the yards would require less yard staff, and as shown in Exhibit IV-5, there is a strong correlation between yard staff and interchange events. Conversely, as interchange events increase, more resources will be consumed.

Exhibit IV-5: Correlation between Productivity Measures and Interchanges³⁷

Based on data from 1987 through 2010

Productivity Measure	Avg. Interchange Events per Railcar	Correlation Coefficient
Yard Track	Interchange events per railcar	0.86
Miles per Day per Railcar	Interchange events per railcar	-0.80
Yard Staff	Interchange events per railcar	0.82

Should the NITL proposal be implemented, more interchange events inevitably would occur, which would lead to a decline in rail productivity. Railroads would require more resources to move the same amount of freight, reintroducing many of the inefficiencies that they have worked since 1980 to eliminate.

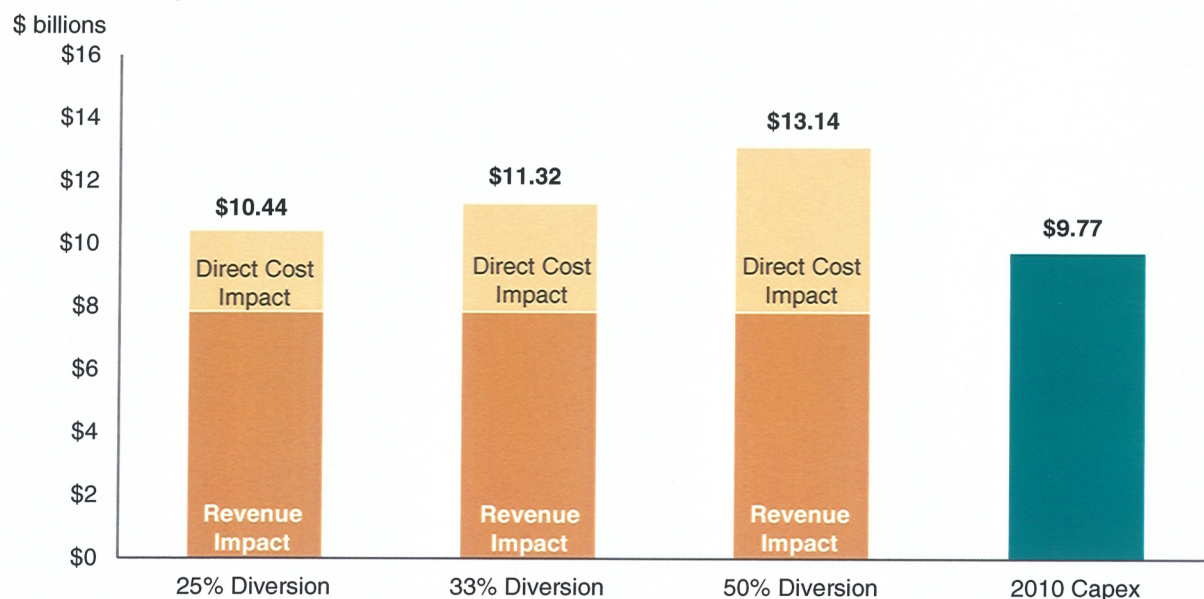
I estimated the additional resources that railroads would need if the NITL proposal were adopted by first looking at the historical relationship between the number of interchanges and the resource requirements for yard track, yard staff, train and engine staff, railcars, locomotives, and fuel. I then estimated the increased requirements that would result from an increase in interchanges due to mandated switching, under an assumption of 25 percent of the affected carloads being diverted to another carrier, a 33 percent diversion rate, and a 50 percent diversion rate. I used FTT's estimate that 7.5 million carloads would be affected by the NITL proposal, and

³⁷ Oliver Wyman analysis.

based my unit costs on various sources that are described in my work papers. I refer to the additional costs for the resources described above that I estimated based on historical experience as *direct costs*.

Exhibit IV-6 depicts the impact of increased direct costs for three diversion scenarios, combined with revenue loss of \$7.86 billion. The revenue loss remains constant for all scenarios on the assumption that if traffic were diverted, then the rate on the alternative route would not exceed a reduced rate offered by the incumbent. This likely is a conservative assumption about the revenue compression that the railroad industry would experience, since the new carrier route might have to offer a further reduction to offset the slower service inherent in adding switches, in order to secure the diversion. The three bars on the left show the sum of the lost revenue and increased cost above the bar. The bar on the right puts the combined impact into perspective by comparing it to total capital expenditures for the Class I railroads in 2010.

Exhibit IV-6: Potential Impacts of Mandated Switching Due to Revenue Loss and Increased Direct Costs, 7.5 Million Carloads³⁸



³⁸ Source: Revenue impacts based on Oliver Wyman analysis of the NITL and FTI data contained in the EP 711 filing, March 1, 2013. 2010 capex from Railroad Facts, 2011 edition, op. cit., p. 44.

The additional direct costs shown above are based on the historical relationship between interchanges and certain categories of direct costs. I emphasize that I am not presenting these cost estimates as a prediction of specific costs that would be incurred. Such a prediction is not possible, due to the uncertainty of the proposal and the limitations of the data available at this time. Predicting costs with precision would require far more detailed information about how much, where, and how often carloads would be switched between the switching carrier and the new rail carrier. The estimates are valuable, however, in showing the magnitude and importance of the direct costs that would be imposed by mandated switching.

Indirect Costs

The direct costs that I estimated above are only part of the cost impact of the NITL proposal. The direct costs identified above are based on the relationship between interchanges and resource requirements in a regime that does not include mandated switching. But it is highly likely that resource requirements would be even greater under a mandated switching regime, as mandated switching would introduce uncertainties and inefficiencies into an existing rail network designed to deliver efficient, single-line service wherever possible. These uncertainties and inefficiencies would certainly create additional *indirect costs*. It is not possible to estimate these indirect costs even in terms of order of magnitude, because there is simply no historical record showing the impact of mandated switching on these types of costs. Given the complex, interrelated nature of the railroad network, however, it is likely that these costs could be very substantial.

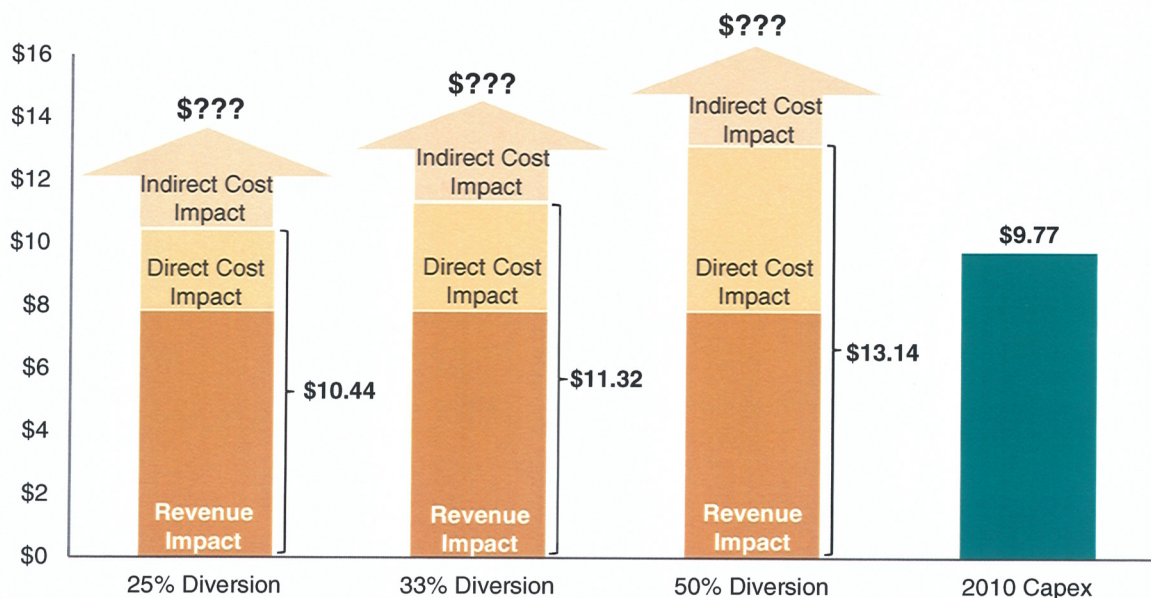
For example, as explained in my opening evidence, mandated switching would likely create substantial line congestion. This would affect not only the quality of service that railroads could provide, but would add substantial costs for fuel, crew, and equipment. Similarly, yard congestion would result from the inability to efficiently plan yard operations. Other costs would

result from the mismatch between the current configuration of yard capacity and the capacity that would be needed to accommodate new switching demands.

Moreover, it is not only the railroads that would experience indirect cost increases. Shippers that would be eligible for mandated switching, as well as all other shippers, would experience increased costs as a result of longer transit times and less reliability in the supply chain, among other substantial costs. For example, slower transit times could require some shippers to lease or buy more railcars to move the same volume of traffic, and experience has shown that the unnecessary addition of railcars to the network is a primary source of congestion for all rail users. While these costs cannot be estimated, the Board cannot ignore them in considering the impact of the NITL proposal. And as shown in Exhibit IV-7, the total cost impact of mandated switching, when added to revenue losses, would be devastating.

Exhibit IV-7: Potential Impacts of Mandated Switching Due to Revenue Loss and Increased Direct and Indirect Costs, 7.5 Million Carloads³⁹

\$ billions

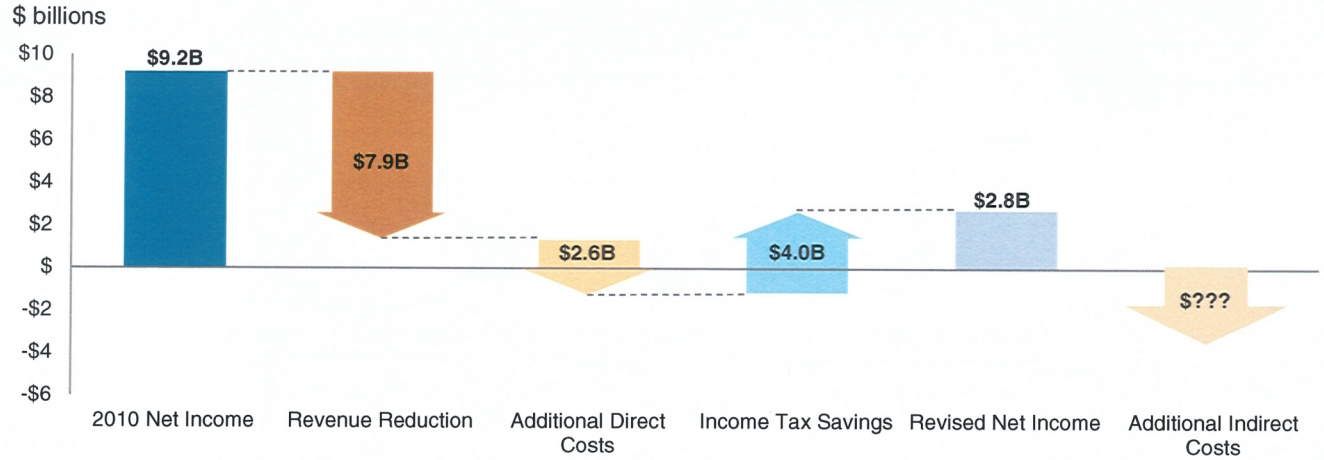


³⁹ Source: Revenue impacts based on Oliver Wyman analysis of the NITL and FTI data contained in the EP 711 filing, March 1, 2013. 2010 capex is from Railroad Facts, 2011 edition, op. cit., p. 44.

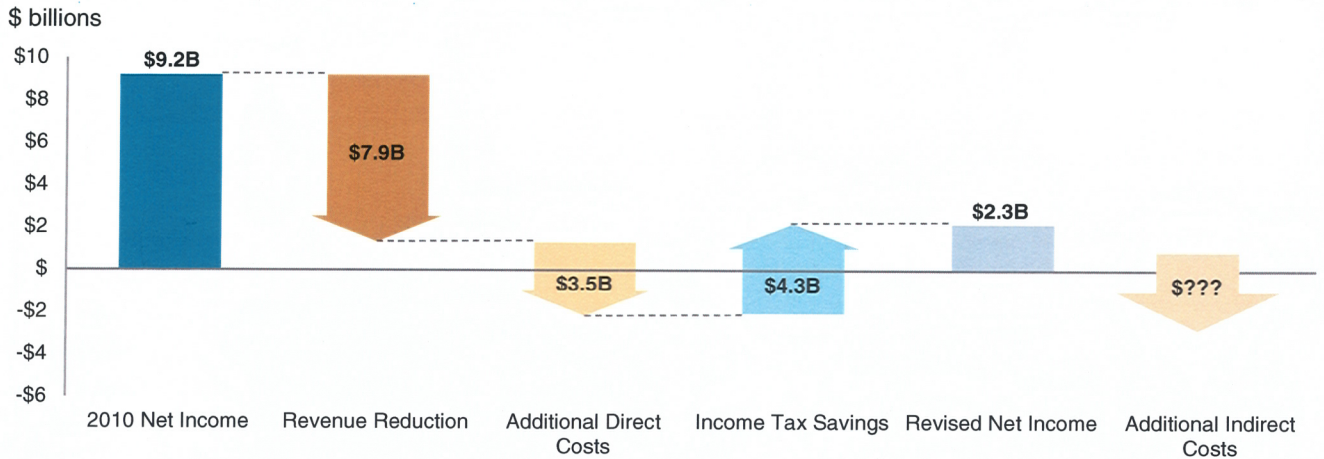
As I noted previously, to translate these revenue losses and additional costs into net income, it is necessary to account for the effect of income taxes. To account for taxes, I created an industry financial statement for the year 2010 and adjusted revenue and costs to account for the revenue losses and increased direct costs described above. The calculations are set out in my work papers. For the diversion rates described above, Exhibits IV-8 through IV-10 on the next page depict “waterfall” charts showing how revenue losses and increased costs would translate into net income.⁴⁰

⁴⁰ Source for Exhibits IV-8 through IV-10: Oliver Wyman analysis.

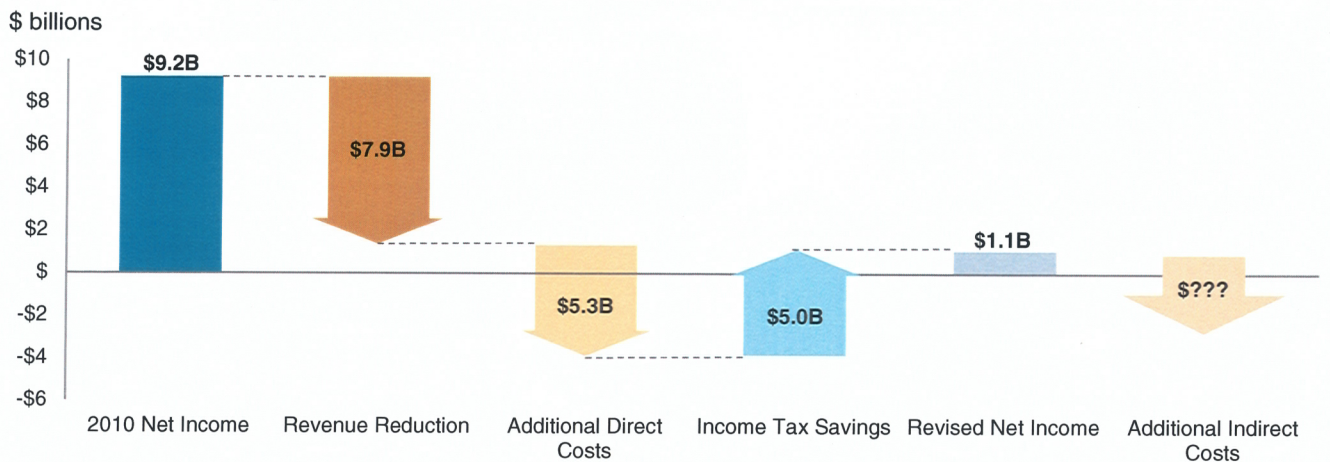
**Exhibit IV-8: Impact of Mandated Switching Scenario: 7.5M Carloads/25% Diversion Rate
(Includes Tax Savings)**



**Exhibit IV-9: Impact of Mandated Switching Scenario: 7.5M Carloads/33% Diversion Rate
(Includes Tax Savings)**



**Exhibit IV-10: Impact of Mandated Switching Scenario: 7.5M Carloads/50% Diversion Rate
(Includes Tax Savings)**



The first column on the left in each chart above depicts the 2010 actual net income of the industry. From left to right, each chart then shows the impact of revenue reductions, additional direct costs, and income taxes on net income under different diversion scenarios, resulting in a revised net income figure in the second to last column on the right. The first adjustment to actual 2010 net income is from the projected revenue losses discussed in Section IV.B, which are shown in a downward arrow in the second column. The third column depicts the effect of estimated direct costs, which further reduce income. The fourth column shows that revenue losses and increased costs reduce the industry's tax burden, resulting in an upward adjustment to net income. The result of these adjustments is a restated net income amount, showing the substantial reduction in net income available to fund infrastructure investments, even before considering the potentially large indirect costs associated with the NITL proposal. The charts demonstrate that the NITL proposal could have a devastating impact on the ability of the railroads to invest in railroad infrastructure.

With the revenues and efficient cost structure available to them today, railroads invest substantially in infrastructure, in sharp contrast to the experience of the railroad industry before deregulation. For example, U.S. railroads plan to spend \$13 billion for capital expenditures in 2013.⁴¹ The current regulatory structure permits and encourages U.S. railroads to invest in infrastructure that benefits shippers and the nation as a whole. As the *Economist* recently noted:

“Europeans have long pitied Americans for their rotten passenger trains. But when it comes to moving goods, America has a well-kept freight network that is the most cost-effective in the world. It is, however, a capital-intensive business. Since the Staggers Act of 1980 deregulated the sector [reference to chart omitted]

⁴¹ Association of American Railroads press release, February 6, 2013.

rail companies have invested about 17% of their revenues in their networks. This is about half a trillion dollars of private money over the past three decades. Even the American Society of Civil Engineers, which howls incessantly (and predictably) about the awful state of the nation's infrastructure, shows grudging respect for good railways in a recent report."⁴²

Mandated switching could roll back 30 years of progress and return the railroads to an era of inadequate returns, massive deferred maintenance, and bankruptcy.

⁴² "Back on Track: The Quiet Success of America's Freight Railways," *The Economist*, April 13, 2013.

V. The NITL’s Claim that Mandated Switching Will Cause an Increase in Rail Traffic Is Implausible

Finally, the NITL tries to dismiss concerns about the loss of railroad revenue with unsupported claims that railroads could potentially see a traffic increase as a result of mandated switching:

“While there are obviously many reasons for shifts in market share, the cost of transportation is clearly a factor when companies make decisions about sourcing, buying, and selling. Although it is impossible to make exact predictions about the amount of traffic that U.S. rail carriers might expect to gain under a more competitive regulatory and business model, there is no doubt that more competition would result in greater pressure to operate more efficiently and a likely increase in traffic that would offset at least part of the loss of railroad monopoly power in selected markets under the introduction of the CSP.”⁴³

The NITL’s claim does not rely on evidence but on wishful thinking. The NITL claim does not hold up under even the most cursory analysis.

As noted previously, the two major commodity groups with the greatest potential to take advantage of mandated switching are coal and chemicals. Agricultural shippers also support the NITL proposal, although their support is somewhat ambivalent. There is no reason to expect any significant rail traffic increases in these commodity groups as a result of mandated switching, let alone an increase in traffic sufficient to prevent the serious financial consequences outlined above.

⁴³ NITL Opening Submission, op.cit., p. 56.

In the area of coal transportation, the factors driving the amount of rail traffic go far beyond the level of rail transportation rates. Much of rail coal movement is driven by demand for electricity and the price of alternative fuels, such as natural gas and oil. In recent years, environmental pressures and the development of relatively cheap and plentiful natural gas has led to a decrease in the use of coal to generate electricity:

“In the 1990s, coal’s share of electricity generation averaged 56 percent. By 2002, it was down to 50 percent. By 2011, it had fallen to 42 percent, its lowest level since sometime prior to when EIA data begin in 1949. Meanwhile, the natural gas share rose from 18 percent in 2002 to 25 percent in 2011, and renewables’ share rose from 2 percent in 2002 to 5 percent in 2011.”⁴⁴

These trends are not likely to reverse. A recent report by the American Coalition for Clean Coal Electricity found that 285 coal-based electric generating units in 32 states, representing 41,000 MW capacity “are scheduled to be shut down due, at least in part, to regulations and other policies issued by the Environmental Protection Agency.”⁴⁵ Peabody Energy Corporation Chairman and CEO Gregory Boyce recently said that U.S. coal exports will likely decline by 25 million tons in 2013 compared to a record-setting 2012, when the U.S. exported between 124 million and 126 million tons.⁴⁶ He said metallurgical coal exports will likely decline by 15 million tons and thermal coal exports will drop by 10 million tons.⁴⁷ Given these facts, it is implausible to assume a significant increase in coal traffic simply as the result of a decrease in rail rates.

⁴⁴ “Railroads and Coal,” op. cit., June 2012, p. 4.

⁴⁵ “New Analysis Shows EPA Rules are Shutting Down Power Plants in 32 States,” American Coalition for Clean Coal Electricity, May 3, 2013 (<http://www.americaspower.org/new-analysis-shows-epa-rules-are-shutting-down-power-plants-32-states>).

⁴⁶ “Get Ready for Drop in U.S. Coal Exports, Industry Officials Say,” *SNL Coal Report*, May 6, 2013.

⁴⁷ *SNL Coal Report*, op. cit.

As to chemical traffic, there also is no basis for assuming that reduced rates from mandated switching would produce a significant increase in chemical traffic on rail.⁴⁸ The NITL claims that its proposal would apply only to carloads for which there are no effective competitive alternatives. If true, that would mean that there is no reason to believe there would be any diversion of chemical traffic from trucks to rail. The carloads affected by the NITL proposal would not, under the NITL's assumption, even have a truck alternative. Moreover, as noted previously, in the aggregate, rail transportation costs are only about 1 percent of the total value of chemical shipments; thus, it is highly unlikely that changes in rail rates would have any significant effect on the amount of chemical traffic moving by rail.

The example of fertilizers illustrates the lack of any basis in the real world for NITL's empty claim that rail traffic will grow under mandated switching regulations. According to the Fertilizer Institute:

“Following World War II, fertilizer use expanded rapidly in the United States, but leveled off in the early 1980's after reaching a peak of 23.7 million nutrient tons in 1981. The United States is a mature market for fertilizer; as such, annual changes in use are typically driven by changes in planted acres, but are also influenced by relative crop-to-fertilizer prices and other factors.”⁴⁹

Marginal changes in railroad rates for fertilizer traffic that has no modal competition are unlikely to result in a discernible increase in rail fertilizer traffic, as the NITL asserts. Demand for fertilizer is mature, and is driven by factors such as the relative price of crops (which drives

⁴⁸ Based on FTT's impact analysis, there would have to be a 30 percent increase in chemical carloads to make up the revenue losses assumed by the NITL. This calculation is based on the loss in revenues that the NITL estimated would occur and the difference between the amounts earned by the railroads before and after mandated switching. Using the NITL's assumption as to revenue reduction per carload, I calculated the number of additional carloads that would be required under the new revenue/carload assumption to make up for the lost revenue.

⁴⁹ The Fertilizer Institute, Statistics FAQ's (<http://www.tfi.org/statistics/statistics-faq>).

planting decisions). Crop prices are volatile and driven by factors having nothing to do with railroads.

The problem with the USDA's assumption that grain traffic would dramatically increase as a result of lower rail rates is similar. The amount of grain that is grown in the United States is clearly not based on the level of rail rates. So the suggestion that reducing rail rates will lead to an increase in grain traffic is not at all credible. Moreover, the USDA fails to consider that supposed increases in grain traffic would have to come only from those grain shippers that receive lower rates from mandated switching. But the USDA acknowledges that the group of grain shippers likely to be able to use mandated switching under the NITL's proposal is relatively small. There is no reason to believe that a small group of grain shippers would be able to increase grain production to make up for revenue losses sustained by the railroads as a result of mandated switching.

VI. Conclusion

Adopting the NITL proposal would impose enormous risks on the railroad network in the United States. These risks include the possibility of local service disruptions, which can spread through the network in severe and unexpected ways, as well as the destruction of the railroad industry's ability to invest to maintain and expand the network to accommodate expected demand growth. The NITL asks the railroad industry and the users of the railroad network to assume these risks for the sole purpose of providing rate reductions to a sub-group of coal and chemical shippers whose rail rates declined more under the current regulatory structure than did their own prices during the same period.

My Verified Statements in this proceeding demonstrate that:

1. Mandated switching will lead to a substantial increase in switching events, which will lead to degraded rail service and a significant increase in the cost of transporting the same amount of traffic. The NITL acknowledges that switching is inefficient and costly. However, it asks the Board to believe that it will not occur. The NITL offers no evidence to support this pivotal assumption, which is implausible on its face. While it is not possible to estimate precisely how much additional switching will occur, I have demonstrated that it could be very significant.
2. Over-regulation of the railroad industry prior to passage of the Staggers Act led to the bankruptcy of some of the nation's largest railroads and massive deferred maintenance of the national railroad network. Under the regulatory structure put in place pursuant to the Staggers Act, the railroad industry in the United States has evolved to become the most efficient and low cost in the world. All shippers in the United States benefit from this efficiency and cost effectiveness. Yet the NITL would place this national asset at risk by

reversing the very steps that the railroads have taken over the past 30 years to become more efficient and cost effective. It would do this for the sole purpose of providing rate reductions to coal and chemical shippers, which have fared very well under the current regulatory structure.

3. The NITL acknowledges that mandated switching is inefficient and costly, but completely ignores the effects its proposal would have on the viability of the national railroad system. The NITL focuses on reduction in railroad revenue, but disingenuously ignores the effect this reduction would have on railroad net income and the railroads' ability to maintain and expand our national railroad network. The fact is that even if one were to accept the NITL's understated estimate of revenue loss and ignore the increased costs of mandated switching, the railroads' ability to make capital investments in the railroad network would be substantially reduced by the loss of \$1.29 billion in revenues *per year*.

The actual outcome would be much worse, however. If the NITL's estimate of lost revenue per car is applied to the FTI estimate of impacted cars, then the NITL proposal would wipe out revenue equivalent to more than 80 percent of the Class I railroads' total capital budgets. If reasonable estimates of direct costs are included, the revenue losses would be in excess of the Class I railroads' entire capital expenditures. Indirect costs would add to this devastating impact.

4. The NITL's argument that additional traffic would appear to offset these losses does not withstand even cursory examination. The NITL provides no evidence or analysis to support its argument. Analysis shows that railroads would need to increase coal and chemical traffic dramatically to offset the revenues lost due to mandated switching. Yet

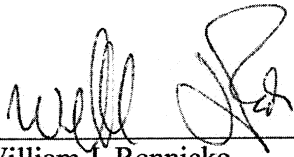
prospects for both domestic and export coal are not bright, and chemical traffic does not seem likely to increase significantly in response to lower rail rates. And, even in the extremely unlikely event that this traffic was to somehow materialize, the railroads would need to increase capital expenditures to accommodate the volume increase.

The railroad network in the United States is a national asset. Under the current regulatory structure, it has become the best in the world. Unlike the nation's highways, waterways, ports, and airports, the railroad network is privately financed. The public interest is best served by maintaining it in good condition and expanding it to meet growing demand in the future, and therefore there is strong public interest in a viable railroad industry that has the financial wherewithal to maintain and grow the network. The railroad industry today is financially viable due, in large part, to 30 years of rationalizing the network and simplifying its operations, including significantly reducing switching. The NITL proposal directly attacks – and seeks to reverse – the very steps the railroads have taken to become financially viable. There is a strong possibility that, were the NITL to prevail, it would destroy the financial viability of the railroad industry and place the future of the national railroad network at risk. This is not a far-fetched outcome – it happened less than 40 years ago. The NITL would do this in the name of providing rate reductions to a subset of shippers that already have fared well under the current regulatory structure. There is no public benefit in taking that risk.

VERIFICATION

I, William J. Rennie, verify under penalty of perjury under the laws of the United States that the foregoing is true and correct and that I am qualified and authorized to file this statement.

Executed on May 28, 2013.



William J. Rennie

**BEFORE THE
SURFACE TRANSPORTATION BOARD**

**STB EX PARTE NO. 711
PETITION FOR RULEMAKING TO ADOPT
REVISED COMPETITIVE SWITCHING RULES**

**REPLY VERIFIED STATEMENT
OF
PHIL C. IRELAND
CONSULTANT
JEXI, INC.
AND
RODNEY E. CASE
PARTNER
OLIVER WYMAN, INC.**

May 30, 2013

Contents

I.	Introduction and Qualifications	2
II.	Summary of Findings	5
III.	Interswitching Was Adopted in Canada to Advance Governmental Objectives That Are Not Relevant to the United States Today	11
IV.	The Canadian Experience With Interswitching Does Not Provide a Model for Assessing the Impact of Mandated Switching on Service Levels and Costs in the United States.....	16
	A. The Canadian and U.S. Rail Networks Are Different.....	16
	B. Canada Has Very Few Interchanges and Is a Simpler Rail Network Than the United States Rail Network.....	22
	C. The Canadian Rail System Developed With a Mandated Switching Regime, Whereas Mandated Access Is Inconsistent With the Historical Development of the Rail System and Infrastructure of the United States.....	25
V.	The Frequency of Annual Interswitching in Canada Cannot Be Used to Project the Likely Frequency of Mandated Switching in the United States If the NITL Proposal Is Adopted.....	27
	A. The NITL's Claims Regarding Frequency of Interswitching in Canada Are Incorrect.....	27
	B. Rail Traffic Flows and End Market Differences	33

Statement of Phil C. Ireland, Consultant, Jexi, Inc. and Rodney E. Case, Partner, Oliver Wyman, Inc.

I. Introduction and Qualifications

I am Phil C. Ireland, an independent consultant of Jexi, Inc. I was a railroad executive with the Canadian Pacific Railroad (CP) for more than 29 years before retiring in January 2013. The CP is a transcontinental railroad in Canada with direct links to major North American ports, including Vancouver and Montreal, and subsidiary operations in the United States.

My last position at CP was Vice President Service Design & Asset Optimization. I was responsible for managing the execution of the operating plan, which governs all shipment/train movements in both Canada and the United States. I was tasked to achieve target performance by optimizing asset utilization while minimizing operating expenses and capital expenditures. I directed all aspects of the railroad operating plan, including delivering on customer commitments, sizing the mobile and capital assets required to execute the plan, and driving continuous improvement in operations. My experience at CP provided me with an in-depth operational knowledge of the rail networks of both Canada and the United States.

Prior to becoming Vice President Service Design & Asset Optimization, I held a variety of management positions in mechanical services, internal audit/consulting services, marketing, and interline management, and have worked with senior executives at all of the major North American railroads.

I have a Bachelor of Applied Science in mechanical engineering from Queen's University and a Masters of Business Administration with a concentration in strategy from McGill University. I am a registered Professional Engineer with Professional Engineers of Ontario (PEO) and the Association of Professional Engineers and Geoscientists of Alberta (APEGA). I am also a member of the Institute of Corporate Directors and hold an ICD.D certification.

I am Rodney E. Case, a Partner with Oliver Wyman, Inc. I specialize in transportation operations planning, strategy development, and performance management, notably for the rail freight industry.

Prior to joining Oliver Wyman, I was the Director of Service Design at Canadian Pacific Railroad, where I led the preparation of the Integrated Operating Plan (IOP). Key elements of the IOP included service level impacts, system cost analysis, train path planning, train schedule creation, crew and locomotive resource requirements, railcar fleet velocity impacts, rail yard and intermodal terminal workloads, port terminal schedules, connections to foreign railroad services, and implementation into daily operations. I was also a Project Manager for the Executive Team of Field Operations at CP. Key projects included railcar acquisition, national labor contract negotiations, and interline railroad coordination.

In 2003, I organized and served as co-chair of the International Rail Planning Conference in Calgary. This was a first of its kind event that brought together rail industry professionals from around the world strictly for the purpose of comparing rail planning approaches. The result has been to establish a global network of freight railroad planners that now meets at conferences conducted annually to share state-of-the-art best practices in rail planning.

I received a Bachelor of Engineering Science in civil engineering from the University of Western Ontario and an M.S. in logistics and supply chain management from Cranfield University (UK).

In addition to our individual qualifications, Phil Ireland and I jointly received the 2003 Franz Edelman Award for Achievement in Operations Research and the Management Sciences. This honor was in recognition of the Canadian Pacific Railroad's innovative approach to railroad scheduling. It is considered to be the equivalent of the "Tech World Series" by the professionals

in this field and is sought after by operations researchers and planners around the world. The organization sponsoring the award was the Institute for Operations Research and the Management Sciences (INFORMS), an international scientific society with 10,000 members, including Nobel Prize laureates, dedicated to applying scientific methods to help improve decision-making, management, and operations.¹

Our Verified Statement responds to information submitted to the Surface Transportation Board (STB) by the National Industrial Transportation League (NITL) in support of the NITL's request for a change in U.S. regulations that would provide mandated switching for numerous shippers that today are served by a single railroad.² In response to the NITL's discussion of the Canadian experience with interswitching, we discuss the fundamental differences between the rail networks and competitive market environments found in Canada and the United States, and explain that Canada's experience with interswitching provides no support for the NITL's claim that the introduction of mandated switching would have no adverse impact on the U.S. rail network.

¹ "Canadian Pacific Railways Streamlined Railroad Scheduling Wins INFORMS Tech World Series," INFORMS press release, May 6, 2003.

² Surface Transportation Board, Ex Parte No. 711, Petition for Rulemaking to Adopt Revised Competitive Switching Rules, Opening Submission of The National Industrial Transportation League, March 1, 2013 ("NITL Opening Submission").

II. Summary of Findings

The NITL has referred to the Canadian experience with interswitching to support consideration of its proposed new rules for mandated switching of rail traffic between carriers in the United States.³ While the NITL has never specified exactly what is to be gleaned from examining the Canadian experience, it appears to be using Canada in an attempt:

- To show that a mandated switching regime has been successfully implemented somewhere else;
- To demonstrate that mandated switching does not produce disruption to rail operations or create additional costs;
- To predict the amount of mandated switching that would occur in the United States if mandated switching were available to U.S. shippers.

The NITL relies on the Canadian experience with interswitching to suggest that the Board need not be concerned with the likely impact of imposing a mandatory switching regime in the United States. But interswitching in Canada differs significantly from the NITL proposal, and the Canadian rail system – its history, development, structure, markets, and shippers – is fundamentally different from the U.S. rail system. These differences in rail systems are summarized in Exhibit II-1.

³ NITL Opening Submission, op. cit.

Exhibit II-1: Overview of Canada/U.S. Rail System Differences

Canada	United States
Partially publically funded development of rail network	Privately developed rail network
Heavily subsidized rail system, until recently	No subsidies for rail freight system
History of interswitching going back 100 years; sole expansion 25 years ago	No history of regulated interswitching or expansion of interswitching
Two Class I railroads, few shortlines	Seven Class I railroads, many shortlines
Population 33 million	Population 309 million
6 major metro areas on an east-west axis	51 major metro areas spread throughout the country
Linear, parallel, east-west rail network	Complex, multiple hub-and-spoke networks
Limited routing options for shippers	Hundreds of routing options
67 interchange points (CN/CP)	Potentially 1,500 interchange points
Export-oriented market (ports/cross-border)	Domestic-oriented market
Large shipper export groups	Multitude of shippers of varying size and with diverse shipping objectives

After summarizing our conclusions below, our statement describes in detail these differences and explains why they undermine the NITL's reliance on the Canadian experience to predict the outcome of mandated switching in the United States.

1. Implementation history and objectives: The Canadian government's decision to adopt interswitching over 100 years ago and expand it 25 years ago should have no bearing on the question of whether U.S. regulators should adopt a similar switching regime today. The history of interswitching in Canada shows that interswitching was designed to accomplish governmental objectives that are fundamentally different from the objectives of U.S. rail regulation.

Since its founding, Canada has embraced active government subsidy and ownership of railroads at both the federal and provincial levels as a means to further political and economic objectives. One of Canada's two Class I railroads (Canadian National – CN) was government owned for more than 70 years (until 1995), with the government subsidizing both operating losses and capital expenditures. Both CN and Canada's other federally regulated railroad, Canadian Pacific (CP), received various forms of subsidy for marginal branch lines and for the

transport of grain for decades.⁴ Since neither CN's nor CP's capital requirements historically were solely reliant on revenue adequacy, it was therefore possible to impose various regulations and competitive policies to serve social, regional, or industrial development objectives rather than to support the ability of the carriers to earn returns adequate to support full capital requirements.

In addition, the primary reasons for adopting interswitching were the result of unique conditions found in Canada that focused on minimizing duplicative capital investment and serving other governmental objectives. Interswitching regulation dates back over 100 years in Canada, and was originally instituted in part to stop the overbuilding of rail lines in urban areas.⁵ Interswitching was not implemented to produce price competition. Indeed, at the time, Canadian railroads did not compete on the basis of price. When current Canadian interswitching regulations were enacted in 1987 as part of broad industry deregulation, one of the two Canadian Class I carriers was still government owned (and nearly 60 percent of the network supported by government operating and capital subsidies).⁶ No changes to interswitching limits have occurred in Canada since, and indeed the Panel appointed by the government to review the relevant legislation has stated that the expansion of interswitching “would worsen the market-distorting aspects of the interswitching rate regime and would be a step backward.”⁷

Canada thus has a 100-year history of regulated interswitching “built in” to its system, and the one change in interswitching limits in Canada took place 25 years ago, under radically different political, network, and market conditions – including government ownership/subsidy of large portions of the rail system. This experience cannot provide any useful insights into the potential impacts of mandated switching on the U.S. rail system, which has no history of regulated

⁴ For example, the Canadian government has provided operating subsidies to the railroads for the retention of uneconomic branch lines and has provided capital to the railways under the Prairie Branch Line Rehabilitation program.

⁵ Vision and Balance: Report of the Canada Transportation Act Review Panel, June 2001, p. 63.

⁶ Canadian National accounted for 59.6 percent of total rail kilometers in 1987. Source: Statistics Canada, Table 404-0010.

⁷ Vision and Balance, op. cit., p. 63.

interswitching and where all freight railroads are privately owned and must fund their capital expenditures through income earned from rail operations.

2. Impact on service levels and costs: Canada's 100-year experience with interswitching also provides no guidance in predicting how the introduction of a new, mandated switching regime would affect service levels or railroad costs in the United States. Canada is a much smaller country than the United States in terms of population and population density, and thus has lower production/consumption needs and simpler distribution patterns. It has only a half-dozen large metropolitan regions, located in a narrow band along the southern edge of Canada, in close proximity to the United States border. To serve these markets as they developed, the Canadian rail network evolved into two major railroads, oriented east to west, with networks that are largely linear and parallel. Reflecting the simplicity of the Canadian rail system, there are only 67 locations between the two Class I federally regulated railroads where interswitching can occur.

By comparison, the United States has 51 major urban areas, located on all three coasts and throughout the nation's interior. To serve these numerous and diverse population centers, the United States has a significantly different, far larger, and more complex rail system, comprising seven major railroads with multiple interconnected hub-and-spoke systems. The U.S. system is a "spider web" of rail lines that present coordination and management challenges that are not present in Canada. There are potentially 1,500 interchange points in the United States where mandated switching could occur, compared to 67 interswitching locations in all of Canada. Furthermore, there are no rail hubs in Canada that come close to the level of complexity of U.S. urban rail hubs such as Chicago, St. Louis, Houston, or Kansas City. Lower traffic densities and a less complex network structure mean that Canada can provide no example of the risk of

congestion that the U.S. rail system could face under mandated switching, as a result of unpredictable increases in localized activity.

3. Frequency of interswitching: Finally, the NITL claims that the frequency of interswitching in Canada is very low, and therefore the Board should not expect that the introduction of mandated switching in the United States would result in a large number of mandated switches. The NITL's discussion of the Canadian experience with interswitching and the frequency of interswitching, however, is both inappropriate and highly misleading.

First, the NITL's reference to annual rates of interswitching in Canada, where the railroad system evolved in tandem with interswitching, and carriers and shippers have had roughly 100 years to integrate interswitching into their commercial and operational relationships, says nothing meaningful about the volume of mandated switching, and the resulting costs and inefficiencies, likely to occur during the extended period of time that would be required for the U.S. rail system to transition to a newly adopted regime of mandated switching. The two scenarios are simply not comparable.

Second, the NITL overlooks the fact that the amount of interswitching that occurs in Canada is not uniform across all regions and rail markets. The frequency with which mandatory switching is used in Canada, as in the United States, depends on specific market conditions and rail networks and thus cannot be generalized. For example, in Canada, low levels of interswitching are experienced for eastern traffic flows due to existing competitive constraints in export markets that account for almost half of all Eastern Canada rail movements. In short, there is no uniform Canadian experience with mandatory switching, and if the NITL proposal were adopted in the United States, likewise there would be no uniform U.S. experience of interswitching. This underscores the futility of the NITL's attempt to project future rates of

switching in the United States under its proposal based on sweeping assumptions and generalizations.

Finally, even if Canada's annual rate of interswitching could be viewed as indicative of anticipated transitional rates of interswitching in the United States, it would not support the NITL's estimate of the amount of switching that would occur in the United States under the NITL's proposal. We explain that the NITL made a number of errors, first in calculating the interswitching rate in Canada, and then in using its flawed calculations to estimate a U.S. switching rate. One obvious error in the NITL's calculations is the NITL's inclusion of U.S. traffic handled by CN's and CP's U.S. subsidiaries in the traffic that supposedly is subject to interswitching in Canada. Thus, even the NITL's misleading calculations of Canadian interswitching rates do not support the NITL's claim that mandated switching in the United States would result in only about 120,000 switches – *less than half* the number of carloads interswitched annually in Canada – even though the U.S. rail market is more than *seven times* larger than Canada's and has *22 times* the number of potential switching locations.

III. Interswitching Was Adopted in Canada to Advance Governmental Objectives That Are Not Relevant to the United States Today

Most Canadian railroads historically were built as instruments of government policy – initially to encourage confederation and settlement. The Railroad Guarantee Act of 1849, which guaranteed bond returns on all railways over 70 miles, led to rapid and sometimes excessive growth.⁸ Throughout the mid to late 1800's and early 1900's, the government built and owned a number of railways and rail lines. During 1917-1923, due to economic depression and railway bankruptcies, it nationalized the Canadian Northern, Grand Trunk Pacific, and Grand Trunk (absorbing C\$1.3 billion in debt) and merged them with the Canadian Government Railways to form the Canadian National Railways (now CN).⁹ CN remained in government hands until privatized in 1995; it lost money in most years prior to deregulation, with the government assuming its debt.

In addition, the Canadian government subsidized both CN and CP for the movement of grain in the West for decades. "Government subsidization of railway construction is a well-documented feature of Canada's development. One of the more famous of these involvements by the government, the 'Crows [Nest Pass] rate,' provided farmers with a fixed rate for transporting grain produced in Western Canada for export."¹⁰ This agreement included protection from competition in return for network additions. Further, "in the 1960s and 1970s, ad hoc programs were introduced to subsidize the railways," which were losing money on grain traffic.¹¹ Finally, in 1983, the Western Grain Transportation Act (WGTA) was passed, which "established a

⁸ *The Railways of Canada for 1870-1*, John Malcolm Trout, Office of the Monetary Times, 1871, p. 57.

⁹ "Canadian National Railways," The Canadian Encyclopedia (<http://www.thecanadianencyclopedia.com/articles/canadian-national-railways>). 1923 Canadian dollars.

¹⁰ Chapter 6—Federal Transportation Subsidies—The Western Grain Transportation Act Program, 1995 May Report of the Auditor General of Canada, Section 6.21.

¹¹ 1995 May Report of the Auditor General, op. cit., Section 6.22.

comprehensive program for the transportation of Western grain and paid a subsidy to the railways for transporting grain to specified export locations.”¹² This direct freight rail subsidy amounted to C\$633 million for the 1993-1994 crop year, for example.¹³ (The WGTA was terminated in 1995; currently, the railroads move grain under an annual revenue cap.)¹⁴

The market-distorting impacts of the presence and operation of CN, as a government-owned railroad for three-quarters of a century, subsidies to the freight rail industry throughout its history, and a revenue cap on a major commodity (since 1995), are unlike anything that can be found in the United States.¹⁵ Government ownership and subsidy of a large portion of the rail network in Canada until recently has meant that rail commercial policy and regulation have been subject to and influenced by larger government objectives, such as regional or industrial sector economic promotion. Canada’s deep legacy of government ownership and funding of the rail system, continuing through the 20th century, is fundamentally inconsistent with the primary reliance in the United States on the private, market-based development of the U.S. rail system.

Furthermore, interswitching was designed to accomplish governmental policy objectives that are not relevant today. The interswitching obligation currently set forth in Section 127 of the Canadian Transportation Act had its origins in Section 253 of the Railroad Act of 1903 and General Order No. 4988 of July 8, 1908; the latter set the interswitching limit of 4 miles. A primary goal of interswitching at the time was to avoid overbuilding of rail lines, particularly in

¹² 1995 May Report of the Auditor General, op. cit., Section 6.23.

¹³ 1995 May Report of the Auditor General, op. cit., Section 6.15.

¹⁴ The Canadian Transportation Agency annually determines the revenue caps for CN and CP for the movement of western grain. For the 2011-2012 crop year, for example, the Agency determined that the railroads exceeded their revenue cap and required them to pay back more than \$670,000. Source: Decision No. 477-R-2012, Canadian Transportation Agency website (<http://www.cta-otc.gc.ca/eng/ruling/477-r-2012>).

¹⁵ With the exception of a brief flirtation with government ownership as part of the restructuring of bankrupt U.S. northeastern railroads into Conrail.

municipalities.¹⁶ As a sparsely populated country with few urban areas, the available volumes of freight simply could not support a multitude of railroads.

Interswitching had nothing to do with price competition. A Panel commissioned by Canada's Parliament to conduct a policy review of the Canada Transportation Act ("CTA Review Panel") observed that "Interswitching rates originated in an era of rate regulation; they were designed to avoid overbuilding in urban areas and to ensure that a joint through rate could be calculated quickly and easily."¹⁷ Indeed, "For most of their history, the Canadian mainline railways were prohibited from competing on price through uniform regulated prices and competed instead on service levels."¹⁸ Until the passage of the National Transportation Act (NTA) in 1987, Canadian railroads were encouraged to agree upon common rates and charges.¹⁹ Thus, access in Canada was not about producing rate reductions through artificial competition, which is the NITL's express objective.

The interchange distance of 4 miles stayed in effect in Canada until 1987, when the NTA expanded the interswitching limit to 30 kilometers (18.6 miles). While the NTA started to move the Canadian system in the direction of market-based regulation, the government remained heavily involved in backing railroad operations and finances. For example, CN, one of only two Class I carriers at the time, continued to be government owned and subsidized.

Since 1987, the Canadian regulatory attitude toward interswitching largely has been one of inertia. Interswitching limits were unchanged in the 1996 Canada Transportation Act (CTA), which superseded the NTA and which is the current basis of Canadian railroad regulation. There

¹⁶ An Economic and Regulatory Framework for Rail Competitiveness, prepared for Alberta Transportation, March 18, 2003, p. 42; Jose A Gomez-Ibanez, Conferences on Railway Reform, September 18-19, 2004, p. 11.

¹⁷ Vision and Balance, op. cit., p. 63.

¹⁸ Straight Ahead: A Vision for Transportation in Canada, Transport Canada 2003, p. 26.

¹⁹ Surface Transportation Board, Ex Parte No. 705, Competition in the Railroad Industry, Joint Reply Comments of Canadian National Railway Company and Canadian Pacific Railway Company, May 27, 2011, p. 3.

have been attempts to expand interswitching limits further in Canada, none successful. It is widely recognized that the continuation of interswitching is an anomaly that is not consistent with the Canadian government's overall move toward more market-based regulation of railroads. The CTA Review Panel in 2001 observed:

“In the Panel's view, expanding the interswitching limits would worsen the market-distorting aspects of the interswitching rate regime and would be a step backward. The proposal ignores market conditions and the averaging effects of a fixed rate – all shippers pay the same rate, regardless of their circumstances. Although interswitching rates have long been a feature of the regulatory landscape, the Panel sees them partly as an anomaly, representing a trade-off between regulation and the market.”²⁰

The government agreed with the Panel's assessment and chose not to extend the limits.²¹

Regulated interswitching has been part of the Canadian regulatory system for 100 years. It was adopted to accomplish objectives unique to the Canadian market and geography. It has existed in a system where government funding of railroads has been an accepted means of ensuring railroads' financial viability. It was expanded with the support of one of two major Canadian railroads (CP, which stood to be a net recipient of interswitching) and at a time when the other major Canadian railroad (CN) was government owned. Interswitching is recognized to be inconsistent with more current views on the importance of market-based regulation, but it has remained, largely out of regulatory inertia. As a result, the Canadian experience with interswitching does not lend any support to the proponents of mandated switching in the United States, which has never had a history of mandated switching, where the public relies on private

²⁰ Vision and Balance, op. cit., p. 63.

²¹ Straight Ahead, op. cit., p.33.

railroads to make investment decisions about the railroad network, and where market-based regulation of railroad conduct has been highly successful in producing efficient and financially stable railroads.

IV. The Canadian Experience With Interswitching Does Not Provide a Model for Assessing the Impact of Mandated Switching on Service Levels and Costs in the United States

The NITL would like the Board to believe that because rail service in Canada has not been disrupted as a result of interswitching, there is no reason to believe that mandated switching would create service disruptions in the United States. But interswitching practices in Canada do not provide a model for understanding the potential for service problems to occur and additional costs to accrue under mandated switching in the United States. As noted above, interswitching has been “built in” to the Canadian system for 100 years. The Canadian experience says nothing about the impact of imposing a new mandated switching regime on a system that has not previously had to deal with mandated switching. Moreover, the Canadian experience with interswitching in a simpler, east-west parallel rail network says nothing about how mandated switching would affect rail service in a high-volume, geographically dispersed, complex “spider web” rail network like that of the United States.

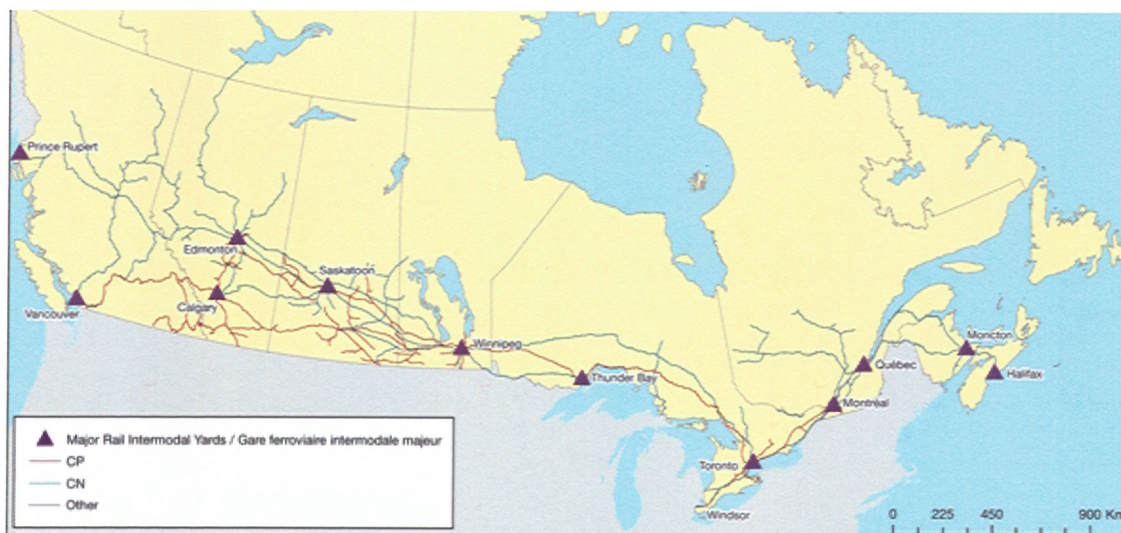
A. The Canadian and U.S. Rail Networks Are Different

The rail network in Canada is significantly different from the rail network in the United States, because the Canadian network developed primarily with an east-west orientation and to service a few population centers. As the Canadian Transportation Agency has recognized: “The railroad industry in Canada is unique in that the number of carriers is very small, with many rail lines being operated by only one carrier.”²² Canada’s rail network evolved to serve a country

²² Client Satisfaction Research 2009-2010, Canadian Transportation Agency (<https://www.otc-cta.gc.ca/eng/publication/railroad-industry>).

with a small, thinly distributed population spread along a largely east-west line running parallel to the northern border of the United States. The size and structure of the Canadian rail network is also the product of a national policy focused on resource development and export. As a result, the Canadian rail network connects a relatively small number of population centers and production areas to one another and to export markets. The relative simplicity of the Canadian rail network is seen in Exhibit IV-1 below.

Exhibit IV-1: Canadian Rail Network²³

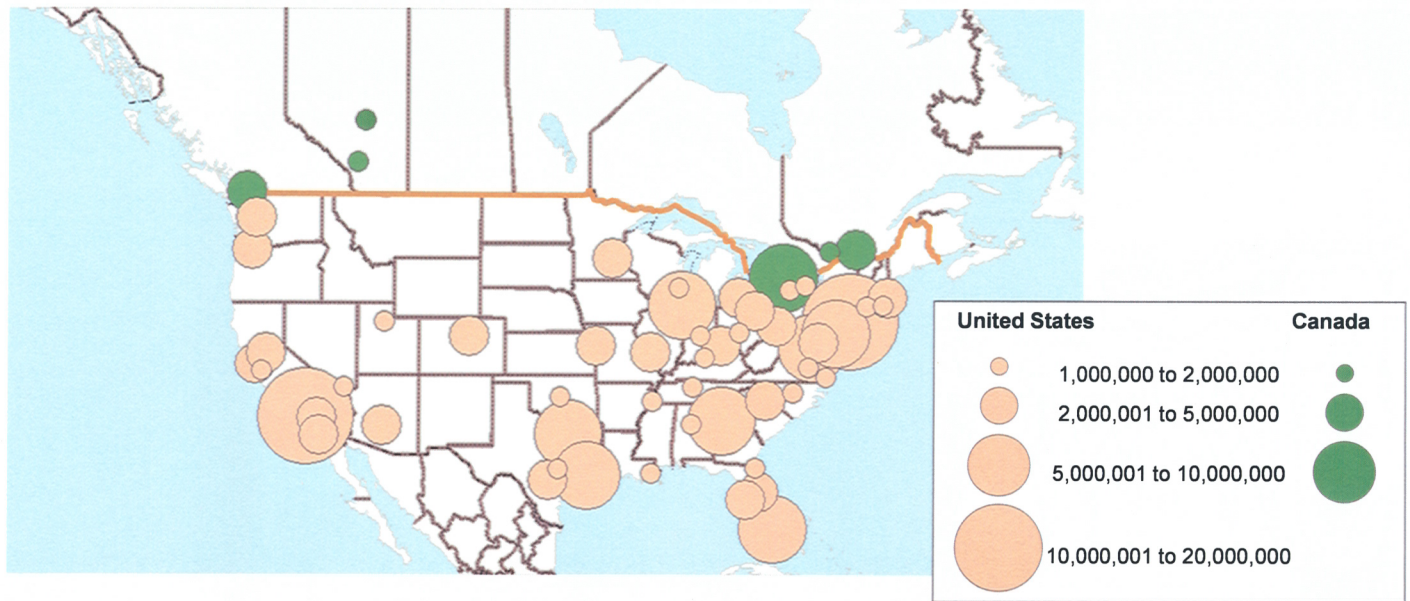


By comparison, the United States is the world's largest economy, with complex rail traffic flows dominated by products moving internally and destined for domestic consumption. The United States is not only nine times larger than Canada (309 million people versus 33 million);²⁴ it is also much more urban: Canada has only six metropolitan areas with more than one million people, versus 51 such metropolitan areas in the United States. Exhibit IV-2 below shows the vast differences in population density and the dispersion of population in the two countries.

²³ Source: Transport Canada.

²⁴ U.S. Census Bureau 2010 and Statistics Canada Census 2011.

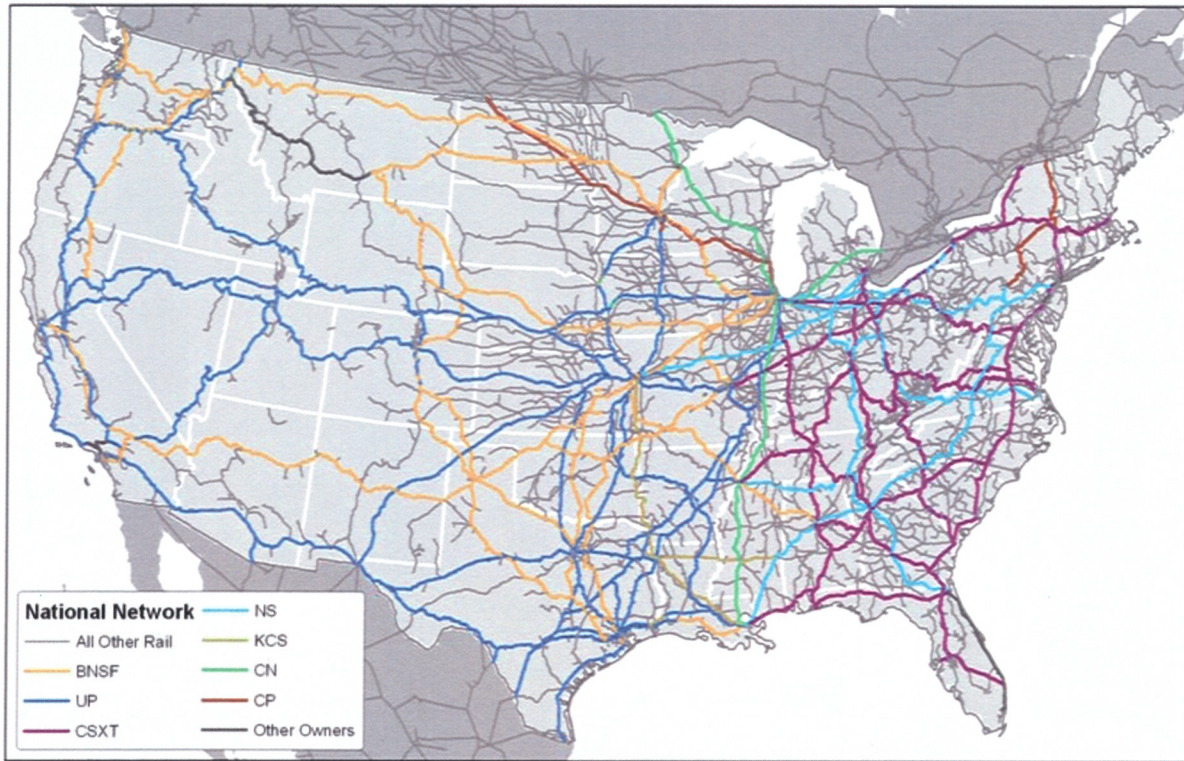
Exhibit IV-2: Population Density in Canada and the United States²⁵



High population density and the fact that the population is widely spread over the continent has resulted in a U.S. rail system that is a complex “spider web” of interconnected lines (Exhibit IV-3).

²⁵ Source: U.S. Census Bureau, Population Division, Annual Estimates of the Population of Metropolitan and Micropolitan Statistical Areas: Table 1, April 1, 2010 to July 1, 2012 (CBSA-EST2012-01), release date March 2013. Statistics Canada, Population and dwelling counts for census metropolitan areas and census agglomerations, 2011 and 2006 censuses. Oliver Wyman analysis. Year 2011 data was used for both the U.S. and Canada for consistency.

Exhibit IV-3: United States Rail Network²⁶



As shown in Exhibit IV-4, U.S. rail route miles are nearly five times Canada's, rail industry revenues are nearly seven times greater, and employees are five times as many. There is also a substantial difference in total traffic and traffic density, with the U.S. having seven times as many carloads and 31 percent more gross ton-miles per track-mile.

²⁶ Source: National Rail Freight Infrastructure Capacity and Investment Study, Association of American Railroads, September 2007, Figure 4.1.

Exhibit IV-4: Comparison of U.S. and Canadian Rail Industries

	Canada	U.S.	Ratio: Canada to U.S.
Number of Class I railroads	2 (CN and CP)	7 (BNSF, CSX, GTC, KCS, NS, SOO, and UP)	1 to 3.5
Number of regional/local railroads²⁷	36	560	1 to 15.6
Total route miles²⁸	28,513	138,565	1 to 4.9
Gross ton-miles (Class I)²⁹	376.1B	2,698.6B	1 to 7.2
GTMs per track-mile owned (Class I)³⁰	12.8 million	16.8 million	1 to 1.3
Originated carloads (Class I, excludes intermodal)³¹	2.5 million	17.6 million	1 to 7.0
Total employees³²	33,624	175,940	1 to 5.2
Total freight revenues³³	\$10.1 billion	\$68.9 billion	1 to 6.8

Different levels of scale and complexity in the two countries have a direct impact on the potential risk of congestion and service deterioration that can result from mandated switching. A rail network like that in the United States, which has high traffic volumes, high traffic density, numerous interconnections with other railroads, and a broad web of rail lines, would be far more susceptible to service interruptions resulting from the unpredictable and unstable traffic flows that would be created by mandated switching.

²⁷ Transportation in Canada 2011, Transport Canada, p. 78; Railroad Facts, 2012 edition, Association of American Railroads, p. 3.

²⁸ Transportation in Canada 2011, op. cit., Statistical Addendum, p. A110; Railroad Facts, 2012 edition, op. cit., p. 3. Canadian data converted to imperial units.

²⁹ Table 404-0014, Statistics Canada; Analysis of Class I Railroads, 2009 revised, Association of American Railroads, line 531. Data for the year 2009, the most recent year that Canadian data was available. The GTM values exclude locomotives. Canadian data for CN and CP only, converted to imperial units.

³⁰ Tables 404-0010 and 404-0014, Statistics Canada; Analysis of Class I Railroads, 2009 revised, op. cit., lines 343 and 531. Data for the year 2009, the most recent year that Canadian data was available. The GTM values exclude locomotives. Canadian data for CN and CP only, converted to imperial units.

³¹ Table 404-0002, Statistics Canada; Weekly Railroad Traffic, 2011 Annual Report, Association of American Railroads; Analysis of Class I Railroads, 2011, Association of American Railroads, line 553; Railroad Facts, 2012 edition, op. cit., pp. 78-79. Class I railroads only, excludes intermodal traffic.

³² 2012 Rail Trends, Railway Association of Canada, p. 5; Railroad Facts, 2012 edition, op. cit., p. 3.

³³ 2012 Rail Trends, op. cit., p. 35; Railroad Facts, 2012 edition, op. cit., p. 3. Canadian revenue restated to U.S. dollars using the exchange rate in effect on December 31, 2011 (0.9789). Exchange rate information provided by X-Rates.com.

Association of American Railroads (AAR) witness Mr. Rennieke described in his opening statement in this proceeding the types of yard operations that can be affected by mandated switching.³⁴ As he explained, a major risk from mandated switching comes from interference with complex yard operations. Yards are often configured to allow the railroad to form blocks of cars destined to specific intermediate yards or destinations. Since a U.S. carrier serves numerous destinations located in different areas of the country and interchanges with numerous railroads, complex yard operations are needed to form blocks of cars that can be efficiently directed to their appropriate destination. The 40,000+ points where traffic can be generated create over 1.5 billion possible origin-destination combinations in the United States. Yard operations in the United States thus must accommodate the need to direct rail cars over this vast system in efficient car blocks. The Canadian railroads' simple east-west orientation does not present these complicated logistics.

Mr. Rennieke explained that mandated switching interferes with the efficient blocking of cars in yards by requiring the breaking up of car blocks and holding cars to be switched on separate tracks. Car blocks must still be formed to accommodate shippers, but existing yard tracks cannot be efficiently used for the resulting blocks and additional track capacity would be needed. The resulting congestion in yards could seriously impact the quality of service for all shippers using the yard.

These concerns are far less important in Canada. In Canada, the impact of mandated switching is far less serious due to the fact that the Canadian rail network is essentially linear and parallel (see Exhibit IV-1), serving a few major urban centers that are effectively in a line from east to west. For example, either CN or CP can operate a single intermodal or merchandise train to serve

³⁴ Surface Transportation Board Ex Parte No. 711, Verified Statement of William J. Rennieke, March 1, 2013, pp. 41-54 ("Rennieke Verified Statement").

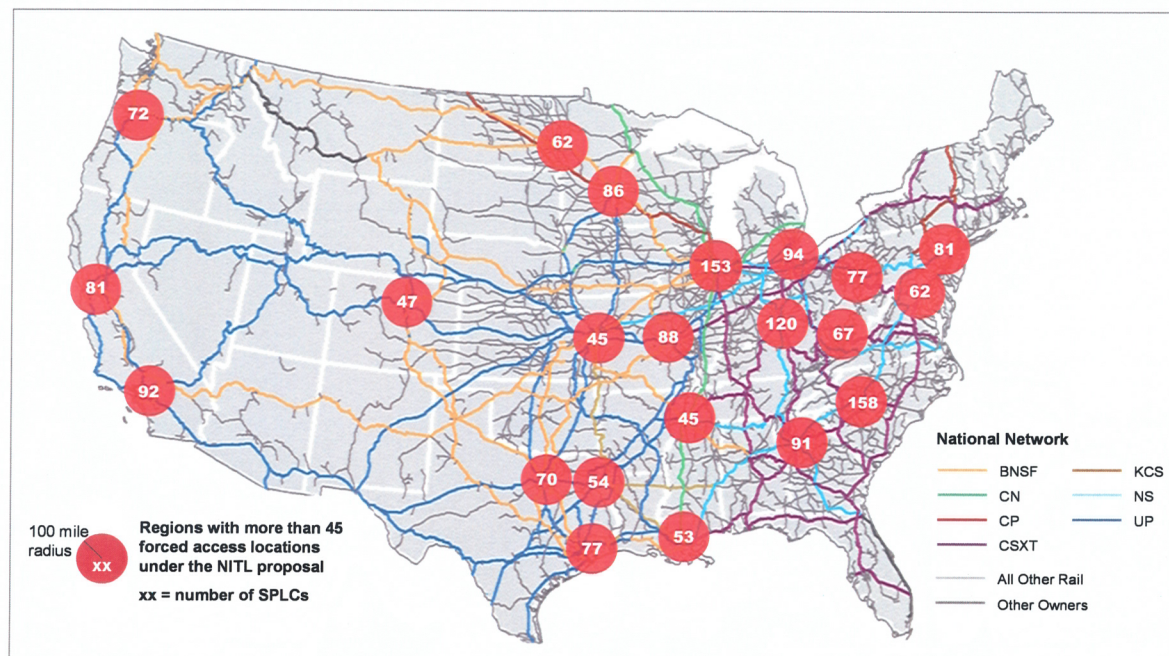
every key Canadian market. In Canada, there are essentially only two routing options, with no overall discernible differences in service offering. Thus, CN and CP are likely to experience little if any “instability” in operating plans from the selection of alternative routing options by shippers.

B. Canada Has Very Few Interchanges and Is a Simpler Rail Network Than the United States Rail Network

The vast difference in the number of potential interchange locations in the United States and Canada also undermines any comparison of the service impact of mandated switching in the two countries. In Canada, there are only 67 interswitching locations between CN and CP in the entire country. In the United States, there are potentially 1,500 interchange points across the U.S. rail network (see Exhibit IV-5).³⁵ Numerous urban areas in the United States have as many potential interswitch locations as the entire country of Canada.

³⁵ Oliver Wyman analysis of March 2007 Centralized Station Master Rule 260 points, Class I carriers only. Includes both operational and “paper” junctions.

Exhibit IV-5: U.S. Rail Network with Major Forced Access Regions Under the NITL Proposal³⁶



There are no counterparts in Canada to the complex network of yards and terminals that have evolved in the United States to accommodate the multitude of routes and markets available to U.S. shippers. Intersecting corridors and multiple mainline routes create thousands of possible route combinations and permutations in the United States that do not exist in Canada. There is nothing in Canada, for example, that compares to Chicago, St. Louis, Houston, or Kansas City, in terms of rail network complexity. Exhibit IV-6 compares rail lines in Chicago, the third most populous city in the U.S., and Toronto, the largest population center in Canada. Chicago, with a population of 9.5 million, is the busiest rail hub in North America, with 37,500 railcars per day, passing through 2,800 miles of track, involving six Class I railroads, and representing 25 percent of all U.S. rail traffic.³⁷ Toronto, in comparison, has just two Class I railroads serving it. It has been the authors' experience that Toronto only sees on the order of 15 percent of the volumes of

³⁶ Source: Rennie Verified Statement, op. cit., p. 97.

³⁷ "Chicago CREATE Original Feasibility Study 2007," p. 37 (www.createprogram.org/feasibility.htm); "About CREATE," October 2011, p.3 (www.createprogram.org/about.htm).

the Chicago rail hub. There is simply no valid comparison that can be made between the scale and complexity of rail activity even for Canada's most populous city and key population/rail activity hubs in the United States.

Exhibit IV-6: Comparison of U.S. and Canadian Rail Hubs: Toronto vs. Chicago³⁸

Toronto, Ontario



Chicago, Illinois



The risks of a service disruption resulting from mandated switching in a network with simple routing choices and interchange options cannot begin to compare to the risks of instability, congestion, and service deterioration that would be incurred by adding complexity and uncertainty to the already complex U.S. rail network through mandated switching. Canada does not share any structural characteristics with the U.S. network that would make it an appropriate and usable model for understanding the impacts of mandated switching on U.S. rail performance

³⁸ Source: Professional Railroad Atlas of North America, 1999.

and service levels. It has neither the size nor the complexity to generate the kinds of risks the U.S. system would face under mandated switching.

C. The Canadian Rail System Developed With a Mandated Switching Regime, Whereas Mandated Access Is Inconsistent With the Historical Development of the Rail System and Infrastructure of the United States

Finally, the Canadian rail system already has evolved to deal with interswitching. Canadian railroads have had decades to determine what capacity is needed to manage carloads that are interswitched. Indeed, as noted above, the original objective of interswitching was to discourage duplicative infrastructure. Rail infrastructure was therefore built consciously to accommodate the combined traffic flows of two carriers.

An example is the CN/CP interchange at London, Ontario. At London, a train can leave the CP yard without entering onto or crossing the mainline, head onto some industrial tracks and go south approximately 1 km. At this point, the train crosses the CN mainline and goes straight into the CN marshaling yard. In sum, this interchange does not occupy the mainline of either railroad (other than crossing over the CN mainline) – it is simply a “yard to yard” move.

Of course, there could be some places in the United States with similar conditions, but the different scale of volume, route complexity, and options – together with no history of mandated interswitching – would create continuous instability in U.S. railroads’ operating plans. As explained by Mr. Rennie, a primary driver of operating problems that would result from the introduction of mandated switching in the United States would come from the mismatch between infrastructure that has been put in place to handle existing traffic volumes and the additional

infrastructure that would be needed to deal with mandated switching.³⁹ Railroads would not have the incentive to add infrastructure just to facilitate the transfer of traffic to a competitor, but the lack of infrastructure would create congestion that would affect all shippers.

These infrastructure concerns have been worked out over decades of experience with interswitching in Canada. But if mandated switching were introduced into a system, like the U.S. system, that had not evolved to accommodate mandated switching, the mismatch between existing infrastructure and infrastructure necessary to deal with the additional switching load could lead to severe service failures.

³⁹ Rennie Verified Statement, op. cit., pp. 73-78.

V. The Frequency of Annual Interswitching in Canada Cannot Be Used to Project the Likely Frequency of Mandated Switching in the United States If the NITL Proposal Is Adopted

In addition to being an invalid model for understanding rail service risks, Canada's annual rate of interswitching does not provide a reasonable basis for predicting the potential frequency of interswitching under mandated switching in the United States, due to the different histories of regulation in Canada and the U.S., different rail traffic flows, different competitive dynamics of end markets, and different levels of shipper control of key commodities. Moreover, the NITL's description of the frequency of interswitching in Canada is highly misleading. There is no homogenous experience in Canada with interswitching that can be used to reasonably predict the likely frequency of mandated switching in the United States.

A. The NITL's Claims Regarding Frequency of Interswitching in Canada Are Incorrect

One of the NITL's key arguments is that the Board should not worry about the impact of mandated switching on service levels in the United States, because switching will not be frequently used by shippers. The NITL points to the Canadian experience to suggest that mandated switching is infrequent even where it is available. The NITL's claims regarding the frequency of interswitching in Canada are highly misleading and provide no support for the NITL's estimates of the level of switching that would occur in the United States under mandated switching.

As an overarching matter, the NITL relies on a faulty comparison when it tries to use annual interswitching rates in Canada, where interswitching has been in place for 100 years, to project the levels of switching that could take place in the United States under a newly adopted

mandatory switching provision. The rail network in Canada and the relationships between individual carriers and each of their shippers have evolved over decades against the backdrop of a Canadian interswitching regime. By contrast, introducing mandatory switching in the United States, where the rail network and long-established commercial relationships have developed without such a regime, can be expected to result in entirely different transitional issues, creating the prospect for significantly greater rates of interswitching and resulting dislocations and inefficiencies. In short, quite apart from the many other problems with the NITL's comparison, its effort to use annual interswitching rates in Canada to project how much switching would take place upon the introduction of mandated switching in the United States is conceptually flawed at the outset.

In any event, the NITL's calculations of interswitching frequency in Canada do not support its claim that the introduction of mandated switching in the United States would lead to only a slight increase in switching activity. As shown in Exhibit V-1, the NITL claims that in 2007, there were 279,900 carloads interswitched in Canada, which they state constitutes 3.76 percent of total Canadian carloads.⁴⁰ However, the NITL also claims that only about 120,000 carloads would likely be switched in the U.S. under the NITL's proposal (for the four largest Class I's), *less than half* the number switched in Canada, despite the far greater size of the U.S. rail market, the larger number of potential switching locations in the United States, and the greater scope of the NITL's proposed mandated switching (e.g., its application to interchanges within 30 miles versus 30 kilometers/18.6 miles).⁴¹

⁴⁰ NITL Opening Submission, op. cit., p. 60.

⁴¹ NITL Opening Submission, op. cit., p. 60.

Exhibit V-1: NITL Assertions for U.S. and Canadian Switching, 2007⁴²

	Carloads Switched	Out of Total Carloads	Total Switching Locations
Canada	279,900 (actual)	7,442,000	67
United States	120,000 (NITL projected, four Class I's only)	31,458,900	~1,500

But even if the NITL's assumed 3.76 percent switching rate assumption was accurate, and it is not, as we explain below, this assumption does not support its claims about the amount of switching that would occur in the United States. If only 3.76 percent of estimated 2007 U.S. carloads (based on our corrected data) were switched under the NITL's mandated switching regime, this would amount to 717,900 carloads switched annually in the United States, or nearly *six times* what the NITL claims would be switched under its proposed rule change (see Exhibit V-2). This fact further undermines the NITL's claim that its mandated switching proposal would have relatively little impact on the U.S. rail system.

Exhibit V-2: Impacted Carloads Using the NITL Percentage Assumption for Switching, 2007⁴³

	Total Carloads	NITL Assumed % of Switching	Resulting Impacted Carloads
Canada (NITL)	7,442,000	3.76%	279,900
United States	31,459,000	3.76%	1,182,900 (calculated)
United States (Corrected, see Exhibit V-3)	19,094,000	3.76%	717,900

Moreover, the NITL's assumption that 3.76 percent of cars are switched in Canada is seriously flawed. The NITL's calculation is based on CN and CP traffic. CN and CP both own

⁴² NITL Opening Submission, op. cit., pp. 60-61. 2007 data used, as this is the basis of NITL's calculations. Numbers may not add due to rounding. The NITL projected impacted carloads for BNSF, CSX, NS, and UP only.

⁴³ NITL Opening Submission, op. cit., pp. 60-61; Analysis of Class I Railroads 2007, op. cit., lines 553 and 576; Railroad Facts, 2008 edition, Association of American Railroads; Weekly Railroad Traffic 2007 Annual Summary, Association of American Railroads; Oliver Wyman analysis. Numbers may not add due to rounding.

and operate rail lines in the United States and move goods between U.S. origins and destinations, as well as between Canadian origins and destinations (as well as U.S. to/from Canada). The NITL appears to have based its interswitching calculation not just on the Canadian traffic of CN and CP that would be subject to Canadian interswitching rules if the geographic requirements are met (30 kilometers from an interchange location), but on the *total* traffic of both railroads, which includes all of their U.S. traffic and their Canadian intermodal traffic (which is not subject to regulated interswitching). By improperly inflating the number of total carloads, the NITL has misleadingly reduced the apparent percentage of Canadian traffic that is interswitched.

To correct the NITL's misleading calculation, we excluded U.S. subsidiary carloads and Canadian intermodal carloads to determine the size of the 2007 Canadian carload market that could be subject to interswitching. Based on this analysis, we arrived at 3.1 million Canadian carloads potentially subject to interswitching, versus the NITL calculation of 7.4 million (Exhibit V-3). Similarly, we corrected total 2007 U.S. carloads to exclude intermodal traffic, resulting in a figure of 19.1 million U.S. carloads potentially subject to interswitching.

Exhibit V-3: Corrected Carload Totals for Canada and the United States, 2007⁴⁴

	Total Carloads (NITL Assertion)	Excluded: Intermodal	Excluded: Domestic U.S. Traffic on Subsidiaries	Excluded: Received Traffic (Not Originated on Carrier)	Added: U.S.-Originating Traffic Terminating in Canada	Actual Carloads Subject to Interswitching
Canada	7,442,000	(1,870,000)	(1,816,000)	(956,000)	257,000	3,095,000 ⁴⁵
United States	31,459,000	(12,365,000)	n/a	n/a	n/a	19,094,000

⁴⁴ NITL Opening Submission, op. cit., pp. 60-61; Analysis of Class I Railroads 2007, op. cit., lines 553 and 576; Railroad Facts, 2008 edition, op. cit.; Weekly Railroad Traffic 2007 Annual Summary, op. cit.; Class I Freight Commodity Statistics, Association of American Railroads; Tables 404-0021, 404-0022, and 404-0002, Statistics Canada; Oliver Wyman analysis. Numbers may not add due to rounding.

⁴⁵ Note that the Canadian carloads do not add up to 3,095,000 due to rounding and the use of different information sources. NITL witness Mr. Maville derived his Canadian carload figure from the annual reports of CN and CP, resulting in 3,057,000 carloads. Oliver Wyman derived its Canadian carload figure, shown above, from data provided by Statistics Canada and the Association of American Railroads. As a result, our Canadian carload total is 38,000 carloads higher (a difference of one-half of one percent).

As shown in Exhibit V-4, the corrected data suggests that the actual rate of interswitching for Canadian carload traffic potentially subject to interswitching is 9.04 percent. Applying this figure to the U.S. rail carload market would result in approximately 1.7 million carloads interswitched.

Exhibit V-4: Corrected Estimate of 2007 Carloads Impacted by Mandated Switching, 2007⁴⁶

	2007 Corrected Total Carloads	Impacted 2007 Canadian Carloads	Implied Switching Percentage	Resulting Impacted 2007 U.S. Carloads
Canada (CN/CP) ⁴⁷	3,095,000	279,900	9.04%	
United States (7 Class Is) ⁴⁸	19,094,000		9.04%	1,726,700

The NITL also presents an alternative, but equally flawed basis for claiming that interswitching is rare in Canada. It claims that about 40 percent of Canadian carloads are “exposed” to interswitching, because they are within the 30 km interswitching limits, and of that 40 percent, “less than one-tenth” are interswitched.⁴⁹ The NITL then uses its assumption of a one-tenth diversion rate to estimate the amount of U.S. traffic that would actually be diverted under the NITL proposal. Once again, the NITL’s 10 percent diversion rate is flawed, because the NITL failed to exclude U.S. and intermodal carloads from its total for Canadian carloads “exposed” to interswitching. If the NITL is correct that 40 percent of Canada’s relevant carloads are “exposed” to interswitching, that would mean that 40 percent of 3.1 million carloads, or about 1.2 million carloads, are actually “exposed” to interswitching in Canada. Using this corrected estimate of the number of carloads “exposed” to interswitching, the number of carloads

⁴⁶ NITL Opening Submission, op. cit., p. 60; Analysis of Class I Railroads 2007, op. cit., lines 553 and 576; Railroad Facts, 2008 edition, op. cit.; Weekly Railroad Traffic 2007 Annual Summary, op. cit.; Class I Freight Commodity Statistics, op. cit.; Tables 404-0021, 404-0022, and 404-0002, Statistics Canada; Oliver Wyman analysis. Numbers may not add due to rounding.

⁴⁷ Carloads subject to Canadian interswitching rules; includes Canada-originated carloads (CN/CP) and U.S.-originated carloads imported to Canada (assumes CP/CN as the only Canadian carriers interchanging with U.S. rail carriers). Excludes carloads of U.S. subsidiaries and Canadian intermodal.

⁴⁸ Excludes intermodal.

⁴⁹ NITL Opening Submission, op. cit., p. 60.

actually interswitched (279,900) would represent nearly one in four exposed carloads, or a 23 percent diversion rate (Exhibit V-5).

Exhibit V-5: Estimate of 2007 Canadian Carloads “Exposed” to Interswitching, 2007

	Total Canadian Carloads	40 Percent “Exposed” to Interswitching	Actual Carloads Interswitched	Derived Diversion Rate (279,900 Carloads Diverted)
NITL Diversion Claim ⁵⁰	7,442,000	2,977,000	279,900	9.4%
Corrected Calculation ⁵¹	3,095,000	1,238,000	279,900	22.6%

The NITL’s assumptions about the rate of diversion are understated for yet another reason. The NITL claims that its proposal before the STB would limit mandated switching to movements for which there is no effective intramodal or intermodal competition. But the 40 percent of Canadian carload traffic the NITL claims is “exposed” to interswitching because the traffic falls within an interswitching district includes traffic subject to truck, ship, and other competition. There is no reason to believe that Canadian truck- and other-competitive traffic that is included in the “exposed” traffic in Canada would experience a significant rate of interswitching for competitive purposes, because the competitive nature of this traffic already restrains rate levels.

Obviously, if the NITL counted Canadian traffic as “exposed” only when it met the terms of its proposal for U.S. mandated interswitching (i.e., no effective competition), then the actual pool of Canadian traffic “exposed” to interswitching would be much smaller, and therefore the diversion rate would be correspondingly higher. For illustrative purposes, if half of Canadian carloads exposed to interswitching had no other competitive options, then the 279,900 carloads

⁵⁰ NITL Opening Submission, op. cit., p. 60.

⁵¹ See footnotes for Exhibit V-1. Numbers may not add due to rounding.

interswitched would represent a diversion rate of 45 percent (based on the corrected estimate of 2007 carloads).⁵²

Finally, as we explain below, any calculations relating to the Canadian experience with interswitching on an aggregate, country-wide basis would be meaningless in assessing the likely frequency of interswitching that would occur in the United States under the NITL proposal. There is no homogenous interswitching experience in Canada. The amount of interswitching that occurs depends on specific market and rail network conditions at specific locations. For example, conditions unique to Eastern Canada transportation markets result in relatively low levels of interswitching in those markets.

Thus, even if the NITL were able to make an “apples-to-apples” comparison (which it cannot and does not), and even if the NITL were correct that in Canada as a whole interswitching is relatively infrequent (which, for the reasons discussed above, does not appear to be correct), the NITL’s conclusion would have no relevance in predicting the amount of mandated switching that could occur in the vastly different transportation markets of the United States.

B. Rail Traffic Flows and End Market Differences

A critical distinction between U.S. and Canadian rail transportation markets is that most U.S. rail traffic has a domestic orientation (83 percent) while most Canadian traffic involves exports (59 percent) (Exhibit V-6).

⁵² Calculation: $279,900 / (1.238 \text{ million carloads} * 0.5)$.

Exhibit V-6: Canada versus U.S. Rail Traffic Flows: Domestic and Imports/Exports⁵³

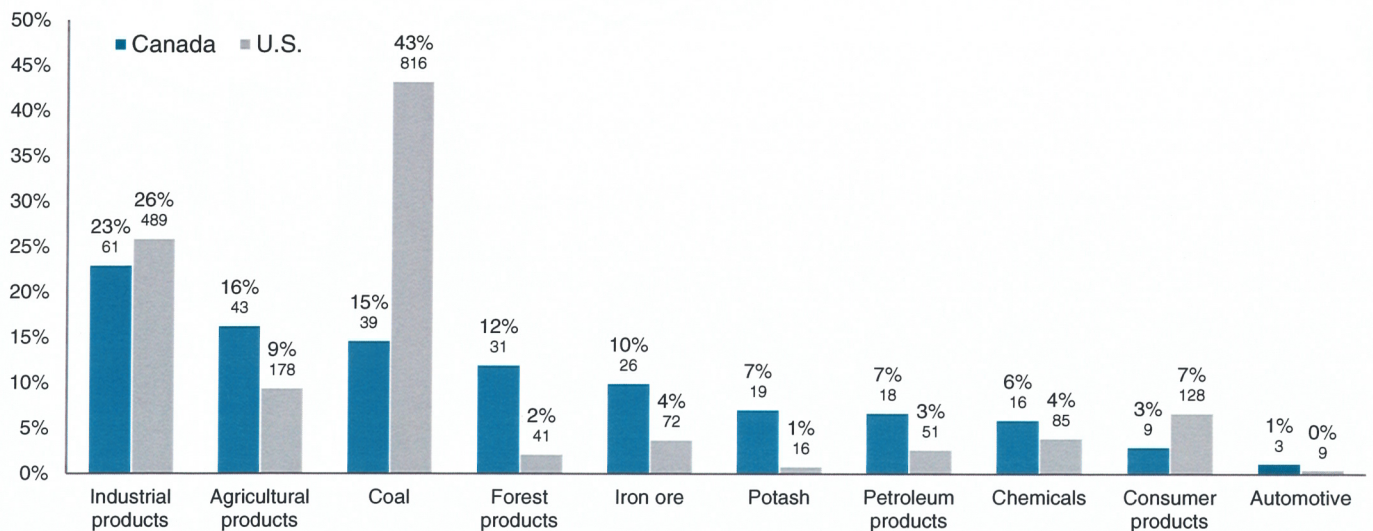
Percentage of short tons

	Canada	United States
Domestic	24.1%	82.6%
Exports	58.8%	11.3%
Imports	17.1%	6.1%

As shown in Exhibit V-7 below, the most important Canadian freight involves industrial products, natural resources, and agricultural commodities destined primarily for export (e.g., auto parts, coal, wheat, lumber, iron ore, and potash), while the most important U.S. freight, such as coal and industrial products, is destined for domestic U.S. markets.

Exhibit V-7: Traffic Mix for Canadian and U.S. Railroads⁵⁴

Percentage of total traffic and millions of short tons originated in 2011



This fundamental difference between the export orientation of Canadian rail traffic and the domestic orientation of U.S. rail traffic is important for two reasons. First, the export orientation of Canadian rail traffic results in a relatively simple and linear rail network that focuses on

⁵³ Table 404-0021, Statistics Canada; Transportation in Canada 2011, Transport Canada, Tables RA23, RA 24, and RA26; Oak Ridge National Laboratory, Freight Analysis Framework, Version 3; Oliver Wyman analysis.

⁵⁴ Source: 2011 Analysis of Class I Railroads, Association of American Railroads; Table 404-0021, Statistics Canada; Oliver Wyman analysis.

transporting freight to a small number of export locations (primarily ports on the West Coast and U.S. transfer locations in the Midwest). In contrast, U.S. railroads primarily serve domestic markets spread throughout the United States, resulting in rail operations with a high level of complexity to maintain efficient operations over a vast “spider web” of rail infrastructure. As explained above, the relative simplicity of the Canadian network and its essentially east-west orientation means that mandated switching is far less likely to produce service disruptions than would be the case for the complex U.S. rail system.

Second, we explain below that certain characteristics of Canadian export markets tend to discourage the use of interswitching. These factors are not present in U.S. freight markets that are focused on domestic traffic flows. Thus, even if the NITL had accurately portrayed the frequency of interswitching in Canada – which is not the case as discussed above – the Canadian experience would have no relevance to U.S. rail freight markets.

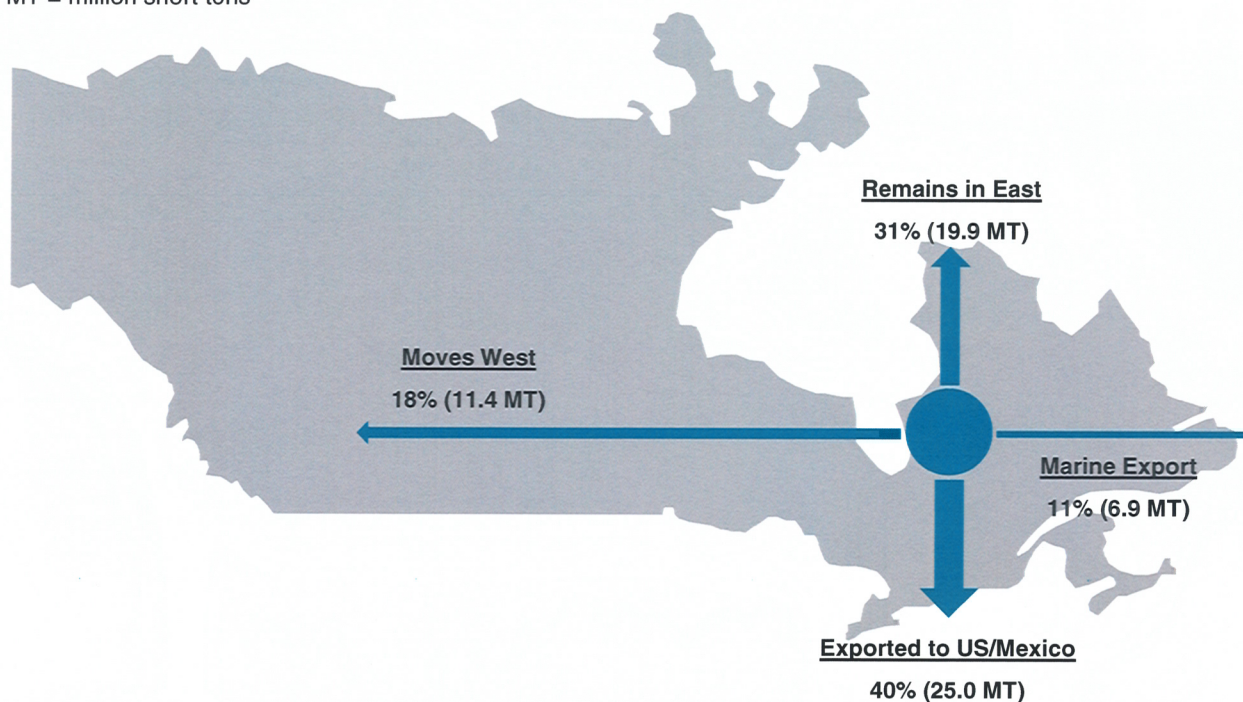
1. Canadian Eastern Traffic Flows

Unlike any region in the United States, eastern traffic flows in Canada are primarily focused on short-haul exports to the United States via Buffalo or Detroit/Chicago border crossings or within the region. As shown in Exhibit V-8, 40 percent of Canadian rail traffic from eastern origins is exported to the U.S. and Mexico. This traffic is handled only a short distance in Canada. As an example, the distances from Cambridge, Ontario – a key origin point for automotive traffic – to key U.S. gateway points are as little as 125 miles to Buffalo, 185 miles to Detroit, and 539 miles to Chicago.

For these cross-border moves, the Canadian portion of the movement is relatively short, and typically only takes a day or so before traffic is interchanged with a U.S. carrier. The U.S. portion of the movement generally will be much longer.

Exhibit V-8: Directional Flows for Traffic Originating in Eastern Canada⁵⁵

MT = million short tons



The short-haul nature of the Canadian portion of the export movement has important implications for interswitching. The long haul is in the United States, and therefore the majority of the through rate is driven by the amount charged for the U.S. portion of the movement. But shippers exporting to the United States are generally able to exercise competitive leverage over U.S. carriers, since the shipper may be able to use alternative U.S. carriers for the U.S. portion of the movement. Therefore, the long-haul portion of the movement is already subject to competitive pressure that constrains rates for that portion of the movement.

As to the Canadian portion of the movement, there is no reason to believe that the use of interswitching would have any impact on the Canadian portion of the rate, as the nature of the traffic moved to U.S. markets in the east and the short length of haul makes trucks particularly strong competitors for this traffic. For example, an analysis of 35 key commodities imported

⁵⁵ Note: Tonnage figures are in short tons. Source: Table 404-0021, Statistics Canada; Transportation in Canada 2011, Transport Canada, Table RA24; Oliver Wyman analysis.

from Canada to the U.S. (Exhibit V-9) through the major gateways of Buffalo and Detroit shows that motor carriers account for three times more traffic than rail. Shippers will not be particularly interested in interswitching to bring down rates on the Canadian portion of the movement, since the existence of truck (and pipeline) competition already constrains rates. Moreover, the costs and delays associated with interswitching would create a risk of driving yet more traffic from rail to truck. Based on the authors' experience, service reliability and speed of transit on these export movements are paramount in preventing shippers from switching to alternative modes; shippers generally are quick to invoke truck options when their expectations and requirements are not met.

Exhibit V-9: U.S. Imports from Canada by Transportation Mode⁵⁶

Percentage of total short tons, average of 35 commodities

U.S. Gateway/Region	Motor Carrier	Rail	Pipeline
Buffalo	33.7%	11.0%	52.9%
Detroit/Sarnia	46.8%	28.4%	20.0%

2. Canadian Western Traffic Flows

Traffic flows in the West are also dominated by exports. Canada is a major exporter of many natural resources and commodities, including coal, iron ore, potash, non-metallic ores and concentrates, wheat, and sulfur, among others. This traffic is largely in bulk form, making it highly suitable for movement by rail; only 13.1 percent of waterborne Pacific region exports are containerized.⁵⁷ Much of this traffic is exported through two ports: Vancouver and Prince Rupert. As shown in Exhibit V-10 below, about 55 percent of Canadian rail traffic from western

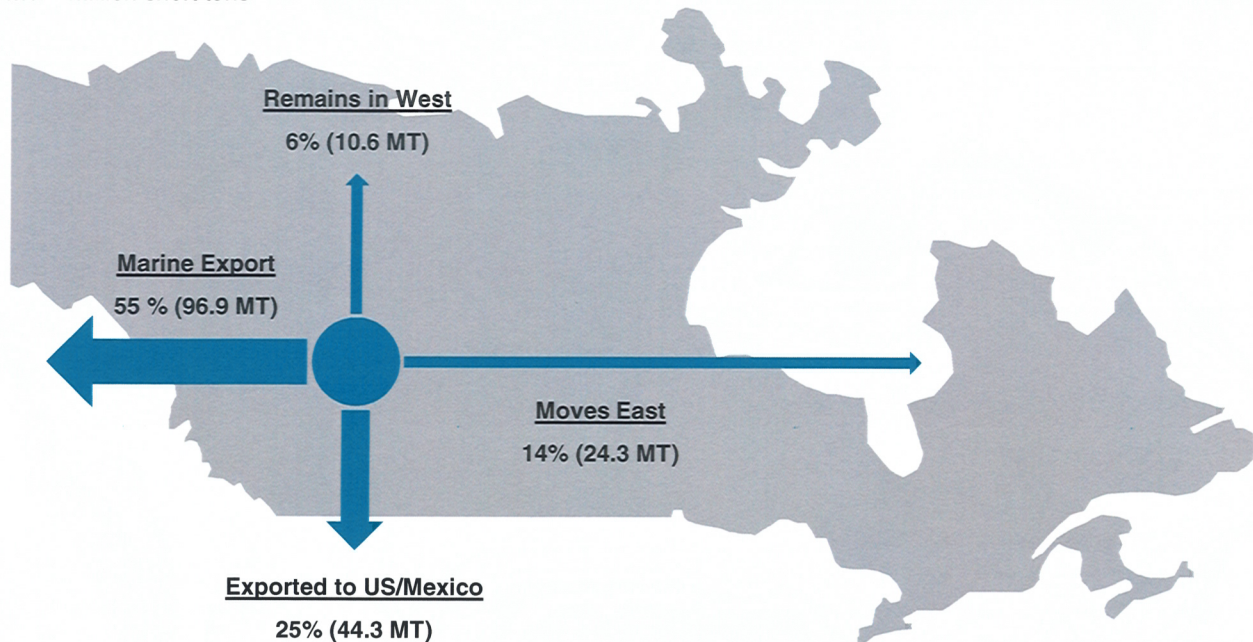
⁵⁶ Oak Ridge National Laboratory, Freight Analysis Framework, Version 3; Oliver Wyman analysis.

⁵⁷ Shipping in Canada 2011, Statistics Canada, Tables 15-1 and 15-2, pp. 60 and 67.

origins moves to West Coast ports for export and another 25 percent is exported to the U.S. and Mexico.

Exhibit V-10: Directional Flows for Traffic Originating in Western Canada⁵⁸

MT = million short tons



Two factors tend to discourage the use of interswitching with respect to Western Canada export traffic. First, Canada's rail traffic from the western regions is driven by maritime exports. The logistics of providing rail transportation for maritime exports are particularly demanding. The seamless coordination of the entire supply pipeline – inland terminal, rail, port terminal, and vessel – is necessary to ensure that the combined capacities of terminals, rail, and vessels are fully utilized at all times. Shippers will be unwilling to take the risk that interswitching would create delays that would undermine the efficient operation of this export-oriented supply chain. It is very expensive to leave ships waiting at a port terminal for railroads to arrive with freight to be

⁵⁸ Note: Tonnage figures are in short tons. Source: Table 404-0021, Statistics Canada; Transportation in Canada 2011, Tables RA 23 and RA24; Oliver Wyman analysis.

loaded for marine transportation. The high degree of sensitivity of Canadian export shippers to delays that could be caused by interswitching is unique to this marine export market.

Second, core export commodities are dominated by large shipper groups that have substantial leverage over railroads without the need to exercise interswitching options to obtain low rates.

Examples of powerful shippers groups and the commodities they control are:

- Teck Resources Limited, a consolidated mining and smelting company, the largest producer of steelmaking coal in North America, and the second largest exporter of seaborne steelmaking coal in the world.⁵⁹ Teck is CP's single largest customer and alone accounts for over 30 percent of daily train starts on CP's western corridor (from rail station Golden westward).
- Canpotex Ltd., the world's leading exporter of potash, which is a joint venture of Saskatchewan potash producers.⁶⁰ As Canpotex explains, "Canpotex represents all three of Saskatchewan's existing producers, [and] we enjoy significant economies of scale on this side of the business."⁶¹
- The just-dismantled Canadian Wheat Board, which was a government-sanctioned marketing organization that represented western Canadian growers of wheat and barley.⁶² In addition to concentrating agricultural shipping demand, the Canadian Wheat Board had the benefit of a government-ordered annual "revenue cap" on rail transport of grain, which limited the total amount of revenue the railroads could earn from hauling grain in a given year.

These factors, which are found in combination in Western Canada, but not in the United States, work together to reduce shipper incentives to use interswitching for competitive purposes.

⁵⁹ Teck 2012 Annual Report.

⁶⁰ Canpotex website (<http://www.canpotex.com/who-we-are/our-mission>).

⁶¹ Canpotex website (<http://www.canpotex.com/what-we-do/logistics>).

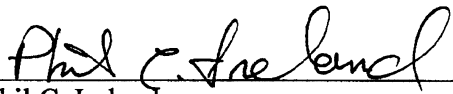
⁶² Canadian Wheat Board website (<http://www.cwb.ca/about-us>).

This underscores the risk of underestimating potential U.S. switching if one relies on Canadian rates of interswitching to predict the use of mandatory switching in the United States, should the NITL proposal be adopted.

VERIFICATION

I, Phil C. Ireland, verify under penalty of perjury under the laws of the United States that the foregoing is true and correct and that I am qualified and authorized to file this statement.

Executed on May 29, 2013.

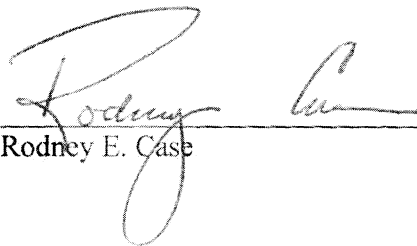


Phil C. Ireland

VERIFICATION

I, Rodney E. Case, verify under penalty of perjury under the laws of the United States that the foregoing is true and correct and that I am qualified and authorized to file this statement.

Executed on May 28, 2013.


Rodney E. Case

BEFORE THE
SURFACE TRANSPORTATION BOARD

STB EX PARTE NO. 711

PETITION FOR RULEMAKING TO ADOPT REVISED
COMPETITIVE SWITCHING RULES

VERIFIED STATEMENT
OF

MARK FAGAN

MAY 30, 2013

I. INTRODUCTION

I am Mark Fagan. I am Adjunct Lecturer in Public Policy at Harvard Kennedy School, Harvard University and previously a Senior Fellow at the Center for Business and Government at Harvard Kennedy School. I am also a founding partner of Norbridge, Inc., a management consulting firm with distinctive expertise in transportation and logistics.

My research at Harvard University centers on the impact of regulation on markets. A recent focus has been the impact of open access regulation on public value creation.¹ In prior research, I wrote about the impact of deregulation in the railroad industry, including a paper published by *Transportation* examining the impact of regulatory differences on rail freight share between the United States and the European Union. I also recently published research results on the risk externality of hazardous materials transportation. My work extends beyond transport; I have examined the impact of electricity restructuring in the United States, which has been published in the *Electricity Journal* and cited in the *New York Times*.

I have worked with shippers and carriers as a management consultant for more than 30 years. As Vice President of Mercer Management Consulting (now operating as Oliver Wyman), I helped clients in a range of industries improve their supply chain efficiency and cost effectiveness. During my time at Mercer, I developed a distinctive expertise in sourcing strategy, helping clients negotiate lower total lifecycle costs with suppliers, including transportation providers. Since co-founding Norbridge, Inc., I have worked with Class I and shortline railroads in the United States and a major freight railroad in Australia to enhance their operational and commercial performance.

The purpose of this reply submission is to describe an appropriate framework for determining whether the National Industrial Traffic League (NITL) proposal for mandated switching creates public value and therefore is in the public interest. That framework involves determining the public benefits flowing from the proposal, defining the costs that the proposal would entail, and comparing public benefits to costs to assess whether the proposal creates public value. NITL does not appear to provide such a framework or, indeed, any public interest framework. In the absence of benefit-cost framework, the Surface Transportation Board (STB) lacks the basis for concluding that the NITL proposal could be in the public interest.

Moreover, my reply explains that the NITL submission appears to mistakenly assume that lower rates created by mandated switching would on their own create public value. However, in the absence of sustainable cost reductions resulting from competition (e.g. increased productivity or greater efficiency), improvements in service for the

¹ In this testimony I use the term “public value creation” to refer to an actual increase in economic value rather than a simple transfer of wealth between entities. Thus, to create public value competition must lead to sustained competition-driven efficiencies, cost reductions, service improvements, investments, innovations and/or expansion of rail traffic attracted from more expensive transportation modes, not simply reduced railroad margins.

customer, and/or expansion of rail traffic, the outcome of mandated access would be only a wealth transfer, not a creation of public value. NITL also fails to identify the costs associated with its proposal or to engage in a comparison of benefits and costs described above. Mandated access only creates public value if the costs associated with mandated switching are less than the benefits.

I have used the framework described here to investigate open access in Australia and the European Union. The results of my research into the impact of mandated access have led me to three core findings. First, the primary outcome of opening access is a wealth transfer from railroads to shippers, rather than public value creation. Second, the costs of coordination (a term used to refer to the full range of costs associated with access, from redundant terminal capacity to extra interchange expenses to longer transit times for shippers) are significant. Third, the promise of competition leading to efficiency, investment, innovation, new services and the like has not materialized. The bottom-line of my research is that the costs of coordination are greater than benefits gained once the wealth transfer is eliminated; thus, access has not resulted in net public value creation.

Applying these findings to the issue facing the STB in this proceeding, I offer the following observations:

- Access via the NITL mandatory switching proposal is intended to lead to rate reductions. However, NITL assumes that a rate reduction without anything more is a public benefit. Public benefits only emerge if the rate reductions are accompanied by sustained competition-driven efficiencies, cost reductions, service improvements, investments, innovations and/or expansion of rail traffic attracted from more expensive transportation modes. Otherwise the rate reductions are only a wealth transfer from the railroads to the shippers. I do not see evidence in the NITL filing that demonstrates that mandated access would lead to any competition-driven public benefits. The public does not benefit from a mere wealth transfer.
- Even if public benefits resulted from mandated access, net public value would be created only if the benefits outweighed all costs resulting from mandated access. On the surface it is difficult to see how such value creation could result from the NITL proposal, as mandatory switching results in additional interchanges, which in turn increase costs and reduce the timeliness of shipments for shippers that obtain access and other shippers whose traffic could be affected by congestion. The proposed access may lead to increased investment but in a most unproductive way – providing capacity (e.g. terminals, equipment, crews) just in case a shipper opts to use the non-incumbent. The filings by NITL and its supporters do not show that the proposal would be value creating; rather, it appears likely that mandated switching would produce only a wealth transfer from railroads to shippers that does not constitute a public benefit.

- Finally, my research indicates that the costs of coordinating the access may well be sizable. The NITL proposal does not address the costs of coordination. The experience in Australia and Europe is that these costs can be significant. This finding suggests that costs could swamp any non-wealth transfer gains, even if there were evidence of such gains.

II. Framework for Assessing whether Access Proposals Are in the Public Interest

A decision to mandate access must be supported by the creation of net public value. In describing the role of regulators, Viscusi, Vernon and Harrington state: “our task is to maximize the net benefits of these regulations to society. Such a concern requires that we assess both the benefits and costs of these regulatory policies and attempt to maximize their difference.”² Therefore the question for the STB in this case is whether the NITL proposal for mandatory switching would yield public value that exceeds the costs imposed by access.

Public value could be created if competition resulting from access drives greater investment and spurs further innovation, leading to sustained productivity gains and improved service, and/or the rate reductions shift more freight to the railroads, replacing a more expensive mode. While competition is expected to reduce rates, in the absence of any sustained cost reductions and/or modal shifts, the lower rates would only be a wealth transfer from railroads to shippers, which does not create public value.

There are also costs associated with access. The direct costs are those for extra handling as the incumbent interchanges the traffic to the access seeker. The access seeker as well as shippers may also incur costs as transit times lengthen and become more variable. There are also a host of indirect costs such as both carriers maintaining resources (cars, crews, terminal space) just in case they are given the business and costs associated with congestion and inefficient use of existing capacity.

While NITL has focused on the rate reduction aspect of access, the costs of coordination can be even more important and, regrettably, have received minimal attention in NITL’s filing. However, coordination costs cannot be ignored because they could dwarf any public benefits of rate reductions. The theory underlying my concern is that offered by Oliver Williamson in his 1968 article on the economics of mergers.³ Williamson focused on the need to consider impacts on both price and on efficiencies in determining the public value of mergers. He recognized that addressing price impacts only could lead to incorrect decisions, as the efficiency gains from mergers were also part of the welfare calculus. Thus, he was concerned with the tradeoff between potentially higher prices resulting from mergers and the efficiency gains that mergers might generate. His partial equilibrium modeling led him to conclude that efficiency issues

² Economics of Regulation and Antitrust, Viscusi, Vernon and Harrington, Second Edition, MIT Press, 1997, p. 10.

³ “Economies as an Antitrust Defense: The Welfare Tradeoffs,” Oliver Williamson, *The American Economic Review*, Vol. 58, No. 1 (1968).

might well dominate price impacts: “a merger which yields non-trivial real economics must produce substantial market power and result in relatively large price increase for the net allocative effects to be negative.”⁴

Williamson’s logic can also be applied to evaluate the effect of government intervention to compel access, with any potential value created from competition offset by possible increases in costs. Applying the Williamson logic in the present case leads to the following: any value creation that might result from increased competition could be offset with relatively modest increases in coordination costs. Figure 1 illustrates the results of applying the Williamson approach to open access. “P1” represents the price before the introduction of access. “P2” represents the price after the introduction of mandated access and reflects the costs of coordination associated with the introduction of mandated access. “Q1” is the amount of rail service purchased prior to access and “Q2” is the amount of rail service used after access is implemented. “MC1” is the marginal cost of the rail service prior to access and “MC2” is the marginal cost after.

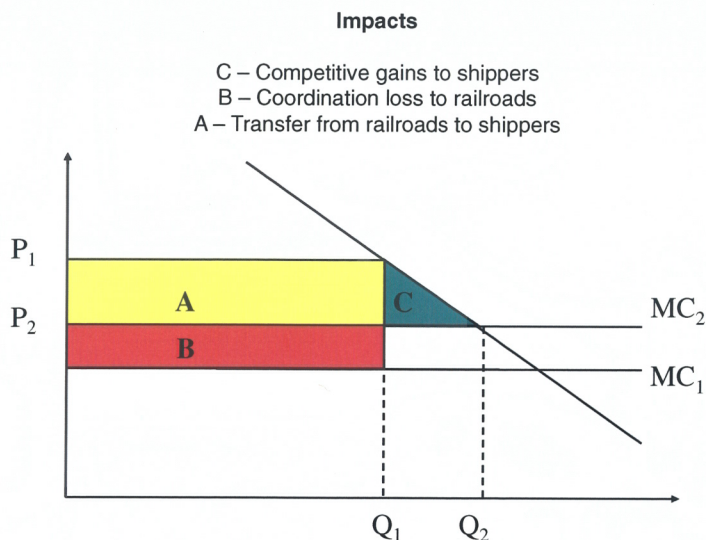
The introduction of access results in the following changes. First, prices fall from P1 to P2. Next, the decline in price increases the demand of rail service from Q1 to Q2, which creates a public benefit as rail at the lower cost is assumed to be a better alternative than was being used before access. This gain is shown in Figure 1 as the triangle C. There are, however, costs associated with access (e.g. increased switching, unproductive standby assets, congestion) that raise the railroads marginal cost, from MC1 to MC2. The resulting cost impact is shown in rectangle B. (If these costs exceed the gains from the price reduction – triangle C- no public value is created.) Finally, the profits that currently flow to the railroads (the difference between the MC2 and P1) are shifted from the railroads to the shippers. This is illustrated in rectangle A.

Jose Gomez-Ibanez applied this methodology to freight rail mandated access.⁵ In one example, he assumed that access reduces tariffs by 20 percent and the price elasticity of demand is -1. In that case, the resulting value created from lower rail rates and increased volumes (triangle C) would be offset by an increase in marginal costs of as little as 2 percent (rectangle B). There would be a large increase in shipper surpluses (wealth) at the expense of railroad surpluses (wealth) as shown in rectangle A. This would be a wealth transfer from railroad to shipper without creating public value, unless the rate reductions were accompanied by a sustained reduction in railroad cost owing to competition-driven innovation, investment, productivity, etc. The bottom line is that even a modest increase in coordination costs may offset any value created by open access.

⁴ “Economies as an Antitrust Defense: The Welfare Tradeoffs,” Oliver Williamson, *The American Economic Review*, Vol. 58, No. 1 (1968), P. 23.

⁵ “The Simple Analytics of Open Access with Illustrations from Railroads,” Jose Gomez-Ibanez, Paper to be given at the annual meeting of the Australian Competition and Consumer Commission, Surfers’ Paradise, Queensland, July 29, 2010.

Figure 1: Williamson Model Applied to NITL Access Proposal



Source: "The simple Analytics of Open Access with Illustrations from Railroads," Jose Gomez-Ibanez, 2010.

III. NITL Does Not Apply a Public Interest Framework

The correct evaluation of the NITL proposal requires a public interest framework such as the one I offer or, in fact, any public interest framework. In this regard, three aspects of NITL's submission are particularly noteworthy.

A. Rate Reductions Are Not in Themselves Public Benefits

NITL and some supporters of the NITL proposal have argued in this proceeding that rates will decline for shippers who will be able to access multiple railroads as a result of mandatory switching. However, NITL ignores that for mandated access to result in value creation, the lower rates produced by mandated access must be accompanied by sustained productivity gains and cost reductions which in turn lead to growing rail share. In other words, rate reductions in themselves may benefit shipper recipients of those reductions, but they do not on their own create public value. A transfer of funds, without more, from a railroad's pocketbook to a shipper's pocketbook yields no public value. NITL has not shown public value flowing from rate reductions.

B. No Serious Consideration of Costs

NITL and its supporters also depart from the public interest framework in that they make no serious effort to identify, let alone quantify, costs that would be incurred as a result of mandated access. While acknowledging that switching entails inefficiencies, NITL stops short of identifying the costs those inefficiencies would entail.

C. No Netting of Public Benefits versus Costs

Since NITL has not evaluated public (as opposed to private) benefits and has failed to investigate and quantify the costs imposed by mandated access, the NITL is in no position to make any determination of net public value. Thus, there is no showing by NITL and its supporters that the benefits of mandated access exceed the costs, and thus no basis for finding that NITL's mandatory switching proposal is in the public interest.

IV. Application of the Framework in my Research

I believe that the public interest framework discussed herein can and should be applied to the issues before the Board in this matter for two reasons. First, the framework is derived from clear and strong economic thinking, e.g. Williamson's work. Second, I have done research using the framework that indicates to me that the framework can be applied in the real world.

Deregulation of transportation in the United States beginning in the late 1970s gave rise to an optimistic view that in the absence of regulation, there was sufficient competition across modes and sources to lead to market-based outcomes. The experience of the United States railroads in the decades following the Staggers Act seems to confirm this view. Costs declined as productivity soared.⁶ Moreover, the value creation was shared with shippers as rates declined consistently for more than 20 years.⁷ The net result was an initial stabilization of rail share followed by a modest increase in rail's percentage of freight share handled.⁸

The United States experience stood in sharp contrast to that in Europe, where rail share declined consistently during the same period.⁹ Europe continued to heavily regulate the railroads and move in the direction of creating competition via open access. In 2008, I undertook a research project to understand the impact of policy differences between the United States and Europe on rail share. The results of that work reveal that after controlling for external differences (geography, commodities, passenger priority, etc.), a significantly higher rail share results in the United States.¹⁰ Based on this research I hypothesized that the deregulatory policy in the United States, rather than the European heavier-handed regulation and open access approaches, has led to the positive rail share in the United States.

As one test of this hypothesis, I subsequently conducted a research project to understand if mandated open access in Australia created public value. Australia was an attractive test-bed because the country had opened its rail infrastructure competition for

⁶ "Railroad Facts," AAR (2011)

⁷ "Railroad Facts," AAR (2011)

⁸ A Study of Competition in the U.S. Freight Railroad Industry and Analysis of Proposals that Might Enhance Competition, Christensen Associates, November 2009, P. ES-7.

⁹ "Nature or Nurture: Why do Railroads Carry a Greater Freight Share in the United States than in Europe?" Vassallo and Fagan, Transportation, (2007) 34:177-193.

¹⁰ "Nature or Nurture: Why do Railroads Carry a Greater Freight Share in the United States than in Europe?" Vassallo and Fagan, Transportation, (2007) 34:177-193.

more than a decade at the time of my research. The specific objective of the research was to determine whether Australia's open access regulation led to sustained public value creation.

My research of the Australia mandated access scenario led me to conclude that mandated access in Australia has not led to public value creation. Access-based competition does not appear to have increased rail share, led to sustained productivity gains, or caused material innovation or private investment. In the absence of these benefits, the rate reductions which have resulted from access are likely just a shift in profits and wealth from railroads to shippers. Moreover, there are real and potentially sizable costs of coordination associated with access. Operational costs stem from more hand-offs and the need to integrate separate rail operations. The administrative and regulatory costs associated with mandated access in Australia have also been significant.

I refer to my research into access regimes in Europe and Australia not to argue that the STB should be guided by experience overseas but to illustrate the type of framework that should be employed to make a public interest determination in this matter. NITL, however, does not appear to have provided or applied any public interest framework. Without an analysis based on a valid benefit-cost framework, the STB lacks the basis for concluding that the NITL proposal could be in the public interest.

V. Conclusion: Implications for the STB

My review of the mandatory switching regime proposed by NITL in light of the framework proposed here leads to three key insights for the Board as it considers that proposal.

- Rates are expected to come down, but rate reductions unaccompanied by sustained competition-driven efficiencies, cost reductions, service improvements, investments, innovations and/or expansion of rail traffic attracted from more expensive transportation modes will represent dominantly a wealth transfer rather than true value creation. NITL's lack of a public value framework to evaluate public value creation is extremely problematic.
- The proposed mandatory switching will likely increase rather than decrease costs, intensifying the concern about net benefits.
- Costs of coordination can be sizable; careful assessment of potential costs is required.

VERIFICATION

I, Mark Fagan, verify under penalty of perjury under the laws of the United States that the foregoing is true and correct and that I am qualified and authorized to file this statement.

Executed on May 28, 2013.



Mark Fagan